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**SEEDS**  
*Vegetable, Flower and Field*  
**AGRICULTURAL IMPLEMENTS**  
*Farm, Poultry, Dairy and Bee Supplies*

*The* **I.W. SCOTT COMPANY**

500 LIBERTY AVE.—113 DIAMOND ST.  
PITTSBURGH, PA.

*Roses, Trees, Shrubs, Plants and Bulbs*

1876 — 1929

*Everything for Farm, Garden  
Poultry and Bees*



# General Information and Suggestions

## SPECIAL DISCOUNT LIST

On orders amounting to \$10 and upward, selected from the following list, a discount of

### FIVE PER CENT

will be allowed when cash is remitted with order.

Vegetable and Flower Seeds  
Bulbs and Nursery Stock

|                  |                  |
|------------------|------------------|
| Insecticides     | Plant-Boxes      |
| Plows            | Pruning Tools    |
| Harrows          | Ladders          |
| Land-Rollers     | Hand Mowers      |
| Lawn-Rollers     | Grindstones      |
| Pulverizers      | Feed-Cutters     |
| Manure-Spreaders | Root-Cutters     |
| Lime-Sowers      | Grinding-Mills   |
| Grain-Drills     | Grain-Cleaners   |
| Seed-Sowers      | Corn-Shellers    |
| Corn-Planters    | Cider-Mills      |
| Weeders          | Gasoline Engines |
| Cultivators      | Pumps            |
| Planet Jr. Goods | Washing-Machines |
| Garden Tools     | Wagons           |
| Sprayers         | Churns           |
| Dusters          | Cream-Separators |

Ask for prices on lines not quoted in catalogue.

Special quotations will be given on large quantities of Seeds, Fertilizers, Implements, and other goods, on receipt of specifications.

Many of our lines are handled by reliable dealers and can be purchased through them.

## ORDER EARLY

Our rush season comes in the months of April and May. To relieve congestion and reduce to a minimum the delay in filling orders, we solicit the coöperation of our customers by placing their orders early and taking delivery before the rush begins.

"Order your seeds early." This means "early in the season," and if you call at the seed store it means "early in the morning." The seedsman's busy months are April and May, his busy days, Saturdays and Mondays, and his busy hours from 11 to 2. By avoiding these rush periods you get more prompt and efficient service.

## REMITTANCES

Money should be sent by Money Order, Registered Letter, Bank Draft, or Check. Amounts less than \$1 may be sent in postage stamps.

## DELIVERY

Write your Name, Post Office, State, and Shipping Station plainly on every order. State whether you want the goods forwarded by parcel post, express, or freight.

All prices are f. o. b. cars Pittsburgh, except where otherwise noted.

**City Delivery.** Prices named in this catalogue do not include delivery. Delivered prices will be quoted on request.

## PARCEL POST SHIPMENTS

**Vegetable and Flower Seeds.** We pay the postage on all packets, ounces, and pounds; also on Beans, Corn, and Peas in half-pints, pints, and quarts. Larger quantities add for postage at zone rate given in parcel post table herewith.

**Bulbs and Nursery Stock.** Parcel Post rates are given in connection with the prices.

**Other Mailable Goods.** Postpaid prices are named in the catalogue and apply within the Second Parcel Post Zone. Additional postage must be included beyond the Second Zone.

| DOMESTIC PARCEL POST RATES<br>Within the U. S. and Possessions,<br>zones from Pittsburgh |        |                 |       | For<br>First<br>Pound | For<br>Each Ad-<br>ditional<br>Pound |
|--|--------|-----------------|-------|-----------------------|--------------------------------------|
| First Zone   | within | 50              | miles | \$0 07                | \$0 01                               |
| Second   | "      | 50 to 150       | "     | 07                    | 01                                   |
| Third  | "      | 150 to 300      | "     | 08                    | 02                                   |
| Fourth   | "      | 300 to 600      | "     | 08                    | 04                                   |
| Fifth  | "      | 600 to 1000     | "     | 09                    | 06                                   |
| Sixth  | "      | 1000 to 1400    | "     | 10                    | 08                                   |
| Seventh  | "      | 1400 to 1800    | "     | 12                    | 10                                   |
| Eighth   | "      | over 1800 miles | "     | 13                    | 12                                   |

Parcels can be insured as follows: Up to \$5, 5 cents; \$5 to \$25, 8 cents; \$25 to \$50, 10 cents; \$50 to \$100, 25 cents, which insures against loss or damage.

**Price Changes.** While we expect but few changes during the year, should increased costs demand an advance, or reduced costs justify a reduction, we reserve the right to change our prices, notifying the customer before shipping in case of advance, and refunding the difference if price has been reduced.



1876-1929

# OUR 54th YEAR

**O**UR FIFTY-FOURTH YEAR IN BUSINESS is beginning, and we look back with pride in our accomplishment and with gratitude to the many loyal friends and customers who have made our achievement possible. To all of them we express our appreciation and assurance that we shall always do our best to make our mutual relations pleasant.

## "My Neighbor Recommended Your Seeds"

We receive so many orders and inquiries beginning with the above sentence, and our store salesmen hear it so often over our counters, that we feel it is not out of place here to assure these "neighbors," who so kindly recommend our goods, that this high-class advertising is keenly appreciated. We value it, not because it costs us nothing in dollars and cents, but for the "thrill" we get out of it—the reward of every merchant who strives to create and supply the demand for high-grade merchandise.

In 1929 we come to you again with carefully selected seeds, tested and approved, and reliable implements, tools, insecticides, fertilizers and all the many items necessary to modern economical farming, gardening, home-improvement, and poultry-keeping.

**VEGETABLE SEEDS.** Not chasing after loudly heralded novelties, but always endeavoring to add every new sort of real value, we submit an up-to-date list of Vegetable Seeds, offered with the confident assurance that each item in it has been tested and found reliable. Critical market gardeners have for many years been depending upon us for the crops on which their prosperity rests, and the private gardener who uses only a small quantity of seeds is supplied from the same stocks that we use in filling the larger orders of the market gardeners. To all alike we offer the best it is possible for us to provide.

**FLOWER SEEDS, ROSES, SHRUBS, ETC.** This department is devoted to supplying the materials to make the home grounds not only of the city and suburban resident but also of the farmer, attractive and in harmony with the well-kept farm and garden.

**FIELD SEEDS.** It is easy to increase or to lose in crop results because of the quality of seed used. The Field Seeds we offer are selected with special reference to their purity and germination. The guaranteed tests on which they are purchased is confirmed in every instance by our own tests after the stock arrives. Our aim has always been to furnish high-quality seeds rather than to sell inferior seeds at low prices. In purchasing Field Seeds, price is but a secondary consideration.

**AGRICULTURAL IMPLEMENTS.** We offer a complete line of all kinds of Farm Machinery, Garden and Lawn Implements, carefully selected from the products of the oldest and most reliable manufacturers. Our guarantee stands back of every implement that we offer.

**DAIRY, POULTRY, AND BEE SUPPLIES.** In these departments we have specialized in items that will aid the farmers who do more than till the soil. Thus we have come to be the recognized headquarters for dairymen, poultrymen, and bee-keepers.

**OUR MAIL-ORDER TRADE.** The fact that our mail-order trade has been increasing by leaps and bounds from year to year is very gratifying to our Company. While we are always glad to have our customers come to our store, inspect our goods, and leave their orders, our list of regular mail-order customers is constantly growing, and appreciating the confidence thus placed in our service, it shall always be our aim to see that this branch of our trade receives special attention.

**AND NOW WHAT?** Notwithstanding the extended presentation in this Catalogue, we handle many articles not here mentioned. If you do not see in these pages what you want, write us about it. If we cannot furnish it, we will do our best to tell you where you can get it. Our success is founded on your satisfaction.

# VEGETABLE SEEDS

The home-gardener, as well as the commercial grower, will find in our Vegetable Seed Department an unusually complete list of the best varieties in cultivation. There are varieties to suit every taste and every purpose. In describing them we have endeavored to make selection easy by telling the advantages as well as the disadvantages of each sort, describing as accurately as possible just how each should perform under normal conditions and good cultivation.

**Quality First.** For more than a half-century we have been supplying the most critical market-gardeners in our immediate territory with the best and purest strains of Vegetable Seeds. The steady increase of our trade during all these years among our home-gardeners, as well as those from distant points, is the best evidence that our seeds give satisfaction.

The test of a seed is the crop it produces—not the price paid for it. It is always our endeavor to supply only the highest bred and most vigorous seeds it is possible to grow. Even the best of seed is none too good when growing conditions are unfavorable, but poor seed will not produce good results, no matter how much care and help the crop receives. The old saying, "The best is the cheapest," applies with greater force to seeds than to any other commodity. So with us, we aim to supply the highest quality at a fair price; quality comes first.

Whether you order by the packet or the pound, you will receive the same high quality of fresh seeds. All of our packet seeds, both vegetable and flower, are put up from exactly the

same stocks that we use for pounds, pecks and bushels, so the small gardener can depend upon getting seeds as fresh and as choice in every way as those which the most critical market-gardeners demand. No order is too small to merit our best attention.

**Quantity Rates.** Half-bushels will be charged at bushel rates; half-pecks will be charged at the peck rate; and half-pounds will be charged at the pound rate.

**SEEDS BY MAIL.** We pay the postage on all packets, ounces, pounds, and fractions thereof, unless otherwise stated; also on Beans, Corn, and Peas in half-pints, pints, and quarts. Larger quantities, add for postage at zone rates.

**NON-WARRANTY.** We give no warranty, expressed or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs, or plants we sell, and will not be responsible for the crop. No responsible seedsman gives any warranty. If the purchaser does not accept the seeds on these terms they are to be returned at once.



Asparagus, Martha Washington

## ASPARAGUS

Three ounces of seed will sow a 100-foot row;  
15 pounds will sow an acre

Tender young Asparagus shoots fresh from the garden! Those who know Asparagus only as it comes out of a can or with the fine flavor lost in hours of travel from the grower's fields to the table, have no idea of the delicious treat in store for them. Yet, contrary to common belief, Asparagus is no more difficult to grow than any other garden crop.

Equally good results may be secured by planting seed or roots; seed is cheaper but from one to two years' time is saved by starting with roots.

Once established, an Asparagus bed will continue to bear bountiful crops for years; so remember that a little care and patience at the start will be well repaid. Choose a well-drained spot and dig the soil deeply, pulverize it thoroughly and, at the same time, work in a goodly quantity of fertilizer. If the soil is heavy, mix in sand or coal ashes also. If you start with seed, sow it early in the spring, in shallow drills 12 to 15 inches apart, and when the plants are about 4 inches high, thin out the weak and crooked ones, leaving about four good strong plants to the foot.

The following spring, dig up the roots and transplant them to the permanent bed, in rows at least 3 feet apart, setting them 1½ to 2 feet apart in the rows. The roots should be well spread out, with the crown or top about 3 inches below the general level of the bed. Barely cover at first but fill in around the plants as they grow until the level of the surface is reached. No cuttings should be made the first year after transplanting, but the second season will bring a good crop.

**MARY WASHINGTON.** An improvement on Martha Washington and the result of years of breeding and selection by the U. S. Department of Agriculture. Plants vigorous, very productive and nearly rust-free. Shoots dark green, large, straight, with heavy purple overtone.

Seed, pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$3.50.

**Two-year-old roots,** by mail, postpaid, \$2.25 for 50, \$4 per 100; by express, not prepaid, \$12 for 500, \$22 per 1,000.

**MARTHA WASHINGTON RUST-RESISTANT.** A new variety developed by the U. S. Department of Agriculture. It produces abundant crops of large, tender stalks and is practically immune from "rust" and other Asparagus diseases. Without doubt, the finest strain of Asparagus now available.

**Two-year-old roots,** by mail, postpaid, \$2 for 50, \$3.75 per 100; by express, not prepaid, \$11 for 500, \$20 per 1,000.

**CONOVER'S COLOSSAL.** Large green stalks.

**PALMETTO.** Comes early; stalks light green.

SEED of above two varieties, pkt. 10 cts., oz. 15c., ¼lb. 30c., lb. \$1. TWO-YEAR-OLD ROOTS, by mail, postpaid, \$1.10 for 50, \$2 per 100; by express, not prepaid, \$1.75 per 100, \$5.25 for 500, \$10 per 1,000.

## Broccoli

A kind of hardy cauliflower which thrives best in moist fall weather. Grow like late cauliflower, sowing in May and transplanting in June or early July.

(An ounce of seed will produce 2,000 plants)

**TRUE ITALIAN SPROUTING.** A distinct variety with large, solid heads that stay green. Many sprouts develop from the leaf-axils after the heads are cut, and each terminates in a small head which is also edible. Pkt. 25 cts., oz. \$1, ¼lb. \$3.

**WHITE CAPE.** Heads of medium to large size, creamy white in color and of delicate flavor. Pkt. 10c., oz. 60c., ¼lb. \$2, lb. \$7.

**PURPLE CAPE.** Tinged with purple; considered a little hardier than other varieties. Pkt. 10 cts., oz. 60 cts., ¼lb. \$2, lb. \$7.

## French Artichoke

This highly prized salad can be grown in our climate, provided the plants are given light protection over winter. Start the seed indoors and give the same treatment as you would tomatoes, transplanting to the garden in May. The plants are perennial.

(An ounce of seed will produce 500 plants)

**LARGE GREEN GLOBE.** The best variety. Pkt. 15 cts., oz. 75 cts., ¼lb. \$2.75, lb. \$10.

## Brussels Sprouts

Delicious and easy to grow. Cultivate like cabbage, sowing the seed in April or May, either in a coldframe or in a sheltered spot in the garden, and transplant in June or early July, setting the plants 2 feet apart. The "sprouts" are like miniature cabbages growing along the main stem.

(An ounce of seed will produce 2,000 plants)

**HALF-DWARF IMPROVED.** Pkt. 10 cts., oz. 40 cts., ¼lb. \$1, lb. \$3.

**INOCULATE THIS  
SEED WITH  
STIMUGERM**

## BEANS

**Everyone Can  
Grow Beans**

Few crops yield more bountiful returns from limited space. There are several classes of Beans and many varieties: all are rich in food value, containing a high proportion of muscle-building protein; served as "Snap" or "String" Beans they are particularly rich in vitamins. There are Green-podded, Wax-podded, and Lima Beans, and of each there are dwarf or bush and pole or running varieties. Generally speaking, the bush kinds bear earlier but the Pole Beans bear more heavily and for a longer time. If you have plenty of space, our advice is to grow some of both, depending on the dwarf sorts for the first pickings and on the pole varieties for the late or main crop. Between Green-podded and Wax-podded varieties there is little to choose, although the Green-podded Beans are generally preferred in local markets.

**Growing Bush or Dwarf Beans in the Garden.** Even a poor soil will grow Beans, although the heaviest yields are, of course, obtained on well-worked and moderately heavy loams. Wait until the ground is warm before you sow—early May is a good time to make the first sowing in this latitude. Open up furrows  $1\frac{1}{2}$  to 2 feet apart and drop the Beans about 3 inches apart in the furrow, covering them  $1\frac{1}{2}$  to 2 inches deep. Later plantings should be covered  $2\frac{1}{2}$  to 3 inches deep. Keep the soil well loosened around the plants from the time they are large enough to cultivate, but avoid touching them when they are wet with rain or dew, as this will nearly always cause the pods to "rust." For a constant supply of "String" Beans all summer make a new sowing every two weeks from early May until the first of August.

*A quart of seed will sow 100 feet of furrow,  $1\frac{1}{2}$  to 2 bushels, depending on variety, will be required for an acre when the seed is planted in drills.*

### Dwarf Green-podded Beans

**BOUNTIFUL.** A splendid variety, well-named, for it is extremely productive and always reliable. It is hardy and thrives on a variety of soils. In a good many gardens it is the first Bean to come into bearing and it continues to bear for a long time if the pods are picked as fast as they become ready for use. The pods are flat, of good size, and handsome appearance, always

stringless, tender until full grown and of excellent flavor. Many gardeners grow no other Bean but Bountiful, securing a constant supply for the table all summer long by making succession plantings.  $\frac{1}{2}$ pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$5.25, bus. \$20.

**BURPEE'S STRINGLESS GREEN-POD.** Another general favorite. Stringless Green-Pod is early and productive, with pods a little shorter than Bountiful but round, thick, and very meaty; always perfectly stringless and tender even when old. If your soil is heavy clay, you will probably find it the best variety to grow.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.75, bus. \$18.

**GIANT STRINGLESS GREEN-POD.** A little later to bear than the kinds described above but a very dependable producer of big crops. A good Bean to plant to succeed the first early varieties. The pods are long, round, and meaty, always stringless and tender, dark green and very handsome.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.75, bus. \$18.

**BLACK VALENTINE.** A popular Bean among the market-gardeners on account of its hardiness, attractive appearance, and good shipping qualities. Black Valentine is medium early and a reliable heavy cropper, bearing long, straight, round pods which, however, are of only fair quality.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.25, bus. \$16.

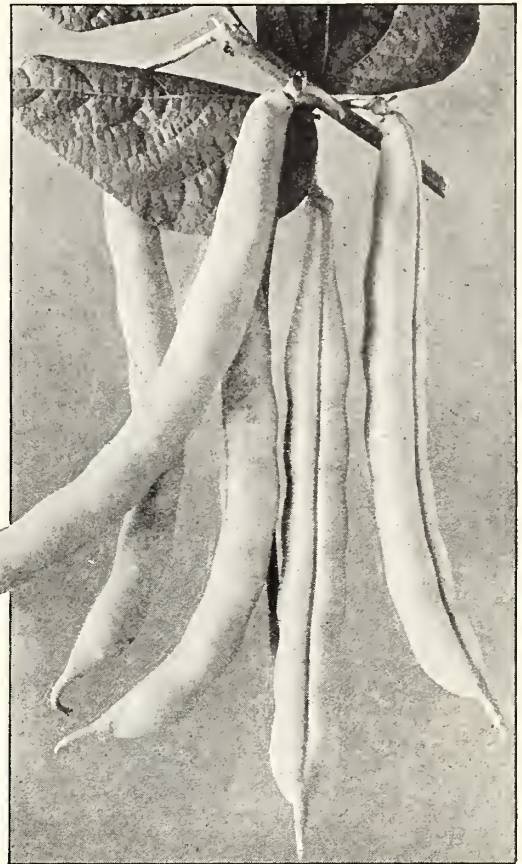
**IMPROVED EARLY RED VALENTINE.** As the name indicates, this is an improved extra-early strain of the old favorite, Red Valentine. Like the original type, it is extremely prolific and a popular Bean with the market-gardeners. The pods are round, meaty, and well-flavored, but become stringy by the time they reach full size.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.25, bus. \$16.

**LONGFELLOW.** An early, hardy, prolific variety with long, round, dark green pods of medium quality. A reliable cropper even under adverse conditions; preferred by market-gardeners in some sections.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4, bus. \$15.

**FULL MEASURE.** One of the newer varieties which is coming into demand for both market and home-gardens. It is early and under favorable conditions will outyield all other Green-podded Beans. The pods are of good size, round, thick, stringless, tender, and of excellent quality.  $\frac{1}{2}$ pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$5.25, bus. \$20.

**STRINGLESS GREEN-POD REFUGEE.** An improvement on the old 1000-to-1, being perfectly stringless even when the pods have reached full size and are old enough to shell. The plants are large and thrifty, producing heavy crops; pods large, round, and fleshy. Ideal for canning.  $\frac{1}{2}$ pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$5.25, bus. \$20.

**REFUGEE, or 1000-to-1.** A strong-growing, late-bearing variety, which will probably produce more bushels to the acre than any other Green-podded Bean. Largely grown for canning. Pods are long, round, tender, and of fine flavor but become stringy when full grown.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.75, bus. \$18.



Giant Stringless Green-Pod Beans



Bountiful Beans



Sure-Crop Stringless Wax Beans

**SURE-CROP STRINGLESS WAX.** A strong-growing, early variety well described by its name, for it is a most dependable producer of large crops under all conditions. The pods are of good size and most attractive in appearance, being broad, semi-round, and bright yellow in color, entirely stringless, brittle, and of fine quality. We can highly recommend Sure-Crop for both market and home-gardens.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.75, bus. \$18.

**WARDWELL'S KIDNEY WAX.** An old favorite, well known to gardeners everywhere. It is hardy, early, and of splendid quality. The pods are broad, flat, brittle, and almost stringless, waxy yellow in color.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.75, bus. \$18.

**ROUND-POD KIDNEY or Brittle Wax.** This Bean is notable for its exceptional quality, being superior in flavor, remarkably brittle and tender, and absolutely stringless even after the Beans have ripened. The pods are long and round, bright yellow in color and very handsome. With good culture it produces very heavy crops.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.75, bus. \$18.

**HARDY WAX.** A vigorous grower which seems to withstand adverse weather conditions better than most other Wax Beans and is, consequently, often preferred for very early sowing. It produces good crops of rather short but meaty, round pods which are stringless and of excellent quality.  $\frac{1}{2}$ pt. 20c., pt. 35 cts., qt. 65 cts., pk. \$4.25, bus. \$16.

**KEENEY'S RUSTLESS GOLDEN WAX.** A remarkably vigorous sort which is less liable to "rust" than other Wax-podded Beans. A good producer of medium-sized, flat, well-filled stringless pods.  $\frac{1}{2}$ pt. 20 cts., pt. 35c., qt. 65 cts., pk. \$4.25, bus. \$16.

**IMPROVED GOLDEN WAX.** Pods are flat and a little longer and thicker than those of the original Golden Wax. Hardy and prolific; quality fair. A profitable Bean for the market-gardener.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.25, bus. \$16.

**GOLDEN-EYE WAX.** An old variety, popular with market growers. Early, producing good crops of semi-round, yellowish white pods.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.25, bus. \$16.

**PENCIL-POD BLACK WAX.** A late-bearing variety, valuable for mid-season use. Not a heavy yielder but the long, slender, round pods are of fine quality.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.25, bus. \$16.

**IMPROVED PROLIFIC BLACK WAX.** A reliable, productive, second-early kind, bearing quite long, round, well-filled pods of excellent quality.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.25, bus. \$16.

Use Bourbon's Fluosilicate Mixture for the Mexican bean beetle. See page 72

## DWARF GREEN-PODDED BEANS FOR SHELLING

**DWARF HORTICULTURAL.** A fine producer of green Shell Beans; useful as a "String" Bean also, for the young pods are tender and meaty. The ripe Beans are round and speckled with purplish red.  $\frac{1}{2}$ pt. 20 cts., pt. 35c., qt. 65 cts., pk. \$4.75, bus. \$18.

**WHITE KIDNEY.** Largely grown for dry Shell Beans. Plants are tall, vigorous, and productive. The pods are of good size and showy but tough, and the ripe Beans are large, kidney-shaped, pure white and do not discolor when cooked.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4, bus. \$15.

**WHITE MARROWFAT.** The favorite Bean for baking. A good producer of large, white Beans of fine quality.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4, bus. \$15.

**RED KIDNEY.** Resembles the White Kidney except that the ripe Beans are red in color.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4, bus. \$15.

**WHITE NAVY, or Pea Bean.** Used mostly for field planting; a sure cropper and extremely prolific. The dried Beans are small, round, and white.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

## DWARF WAX-PODDED BEANS

The Yellow- or Wax-podded Beans are considered more handsome in appearance and bring higher prices in some sections than the Green-pods.

Generally speaking, they are good producers, but where rust or mildew is prevalent, do not stand up quite so well as the Green-podded varieties.



Wardwell's Kidney Wax Beans

**DWARF WAX-PODDED BUSH BEANS, continued**

**DAVIS WHITE WAX.** Hardy, early, and productive. The pods are long, flat, waxy white in color and very handsome, standing shipping well but becoming stringy when full grown. The dry Beans are white, tender, and of fine flavor when baked.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.25, bus. \$16.

**HODSON WAX.** A medium-early or main-crop Bean which sells readily on the markets on account of its fine appearance. Produces heavy crops of long, flat pods. A good shipper but rather mediocre in quality, becoming stringy when full grown.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.25, bus. \$16.

## BUSH LIMA BEANS

One of the finest treats the garden offers is fresh, green Lima Beans. But remember that the seed is tender and will not grow in cold weather or wet ground. Wait until warm weather has surely come (the last of May is generally safe in this latitude), and then sow in a warm, sunny spot, preferably in a rich, mellow soil. Sow Bush Lima Beans in furrows about 2 inches deep and at least 2 feet apart, spacing the seeds 3 to 4 inches apart in the furrow. They will sprout quicker if planted with the "eyes" down. Later on the plants may be thinned to stand 8 to 10 inches apart as they yield best if given plenty of room. The Bush Limas bear earlier than the Pole varieties and are, therefore, more useful where the growing season is short.

*A quart of seed will sow 100 feet of furrow; a bushel will sow an acre*

**BURPEE IMPROVED.** A vigorous, productive variety. The bushes are large and bear loads of big, broad pods, each containing 4 to 6 Beans of the largest size and finest quality. Medium early.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4.75, bus. \$18.

**FORDHOOK.** Probably the most popular Bush Lima and one of the best for the home-garden for it is extra early and extremely prolific, bearing good-sized pods which contain 3 to 5 large, thick, meaty Beans of delicious quality.  $\frac{1}{2}$ pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$5.25, bus. \$20.

**BURPEE'S BUSH.** A hardy, reliable variety; prolific, medium early, and of good size and quality.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4, bus. \$15.

**WOOD'S PROLIFIC.** An improved strain of the Dwarf Sieva or small-seeded Lima. It is very productive and hardy; valuable for planting where the large-seeded Limas do not thrive. The quality is extra-fine.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4, bus. \$15.

## POLE LIMA BEANS

These take longer to bear than the Bush Limas, but yield larger crops and continue to bear for a longer period. The seed is usually planted in hills, at least 3 feet apart each way, dropping 4 to 6 Beans to the hill. Set poles 8 to 10 feet long in each hill to support the vines.

*A quart of seed will plant 100 hills; 20 quarts will plant one acre*

**LEVIATHAN.** A general favorite, being early, vigorous, and productive, bearing loads of giant pods, well filled with large tender Beans. One of the most reliable varieties for the home-garden.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**EXTRA-EARLY JERSEY.** Comes into marketable size a week earlier than other varieties. Good size and fair quality.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

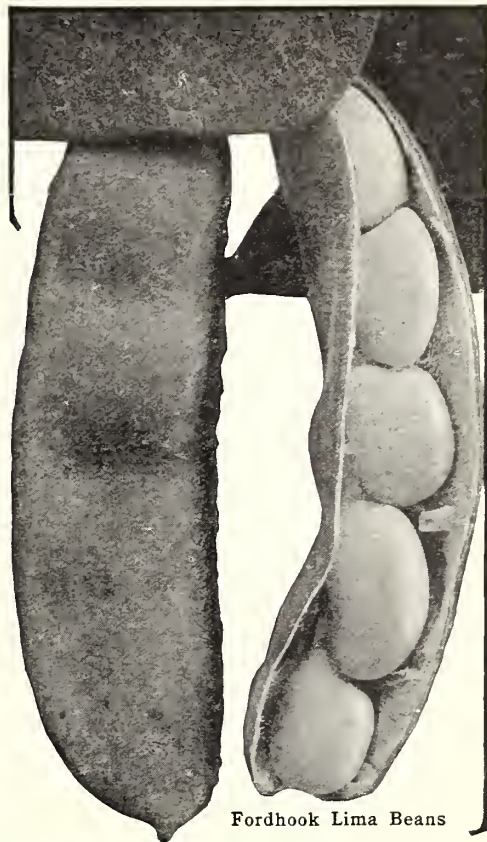
**SIEBERT'S EARLY.** Extra-early and one of the most productive. When freshly shelled the Beans are large and thick through and of fine quality.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**DETROIT MAMMOTH.** The largest-podded variety in cultivation. Medium early, extremely vigorous and prolific, bearing pods 9 to 11 inches long, containing 5 to 7 mammoth Beans of excellent quality.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4, bus. \$15.

**KING OF THE GARDEN.** The strongest growing and most productive of the large Limas, bearing broad pods 5 to 6 inches long, containing 4 or 5 large, flat Beans. Allow only two vines to each pole.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**CARPINTERIA.** This medium-late variety sets the standard for quality among Pole Limas. It bears large pods, containing 3 to 5 Beans which are very thick and mealy and retain their green color even when ripe.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**LARGE WHITE.** The old standard large-seeded Pole Lima; medium early and vigorous.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 50 cts., pk. \$3.25, bus. \$12.



Fordhook Lima Beans



Leviathan Pole Lima Bean

All seeds postpaid at prices quoted, except as noted under "Parcel Post Shipments" on inside front cover page



Kentucky Wonder Beans

## WAX- AND GREEN-PODDED POLE BEANS

The Pole Beans do not come into bearing so quickly as the Bush varieties but they yield much larger crops and, if kept picked, will continue to bear for several weeks. As the seed is rather tender, they should not be started until about two weeks after it is safe to sow Bush Beans. They succeed best in a well-drained mellow soil which has been liberally enriched with manure. The usual practice is to grow them in hills placed 3 to 4 feet apart, using poles about 8 feet long to support the vines. Drop 6 to 10 Beans in each hill and cover 2 inches deep, thinning out when the plants are well started so as to leave only 3 or 4 of the strongest on each pole. By using string or wire as support, one stout pole may be made to serve several hills.

*A quart of seed will plant 100 to 200 hills; from 8 to 10 quarts will plant an acre according to the size of the Beans*

**KENTUCKY WONDER.** The most popular Pole Bean. It is early, reliable under all conditions, and immensely productive, bearing long, round, dark green pods which are tender, stringless when young, and of fine quality.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 60 cts., pk. \$3.50, bus. \$13.

**KENTUCKY WONDER WAX.** Similar in vigor and productiveness to the green-podded Kentucky Wonder but the pods are broader and light yellow in color, fleshy and brittle and slightly stringy.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4, bus. \$15.

**GOLDEN CLUSTER WAX.** Extra-early and bears for a long season. The pods are of medium length, broad and flat, waxy yellow and most attractive in appearance. In flavor the Golden Cluster Wax Bean is unsurpassed, but the pods should be picked young for they become rather stringy when full grown.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$4, bus. \$15.

**LAZY WIFE.** Late but very productive, carrying great clusters of green pods which are 5 to 6 inches long, semi-round, meaty, stringless, tender, and richly flavored. Useful also as a Shell Bean.  $\frac{1}{2}$ pt. 20c., pt. 35c., qt. 60c., pk. \$3.50, bus. \$13.

**BURGER'S GREEN-POD STRINGLESS.** Also known as the White-seeded Kentucky Wonder. Extra-early and prolific, bearing round, brittle pods of fine quality.  $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 60 cts., pk. \$3.50, bus. \$13.

**KING HORTICULTURAL.** An improvement on the old London Horticultural, or Speckled Cranberry. Late but productive; pods short, broad, pale green streaked with red. The Beans are extra-good, either green or dry.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 65 cts., pk. \$3.50, bus. \$13.

**SCARLET RUNNER.** A distinct type largely used as an ornamental climber. It grows rapidly; the foliage is luxuriant and the bright scarlet blossoms are most attractive. Pods light green. The dried Beans are used like Limas.  $\frac{1}{2}$ pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$5.25, bus. \$20.

## Mangel-Wurzel or Cattle Beets

The Mangels furnish large quantities of nutritious and healthful food for stock and poultry—yields of twenty-five to thirty tons and more per acre are often obtained. Sow the seed in April or early May and when the plants are 2 or 3 inches high, thin them out to stand 8 to 10 inches apart. Harvest before frost and store in pits outdoors or in a dry, frost-proof cellar.

*Five to 6 pounds of seed will sow an acre*

**LONG RED MAMMOTH.** The heaviest yielder, producing enormous roots which grow largely above ground and are easy to harvest. Particularly fine for milch cows. Oz. 10 cts.,  $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

**NORBITON GIANT LONG RED.** Somewhat similar to the above. Excellent for feeding to stock. Oz. 10 cts.,  $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

**RED GLOBE.** Oval or globe shaped, giving heavy yields on shallow soils. A good keeper. Oz. 10c.,  $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

**GOLDEN TANKARD.** Large, long roots unusually high in feeding value. A splendid cropper on fairly deep soils. Oz. 10 cts.,  $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

**WHITE SUGAR.** Very productive, rich in sugar and especially good for stock feeding. Oz. 10 cts.,  $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.

**KLEIN WANZLEBEN.** Rigorously selected for high sugar content and the most popular variety with the sugar-beet growers. We offer a productive, easily grown strain. Oz. 10 cts.,  $\frac{1}{4}$ lb. 20 cts., lb. 50 cts., 5 lbs. \$2.25.



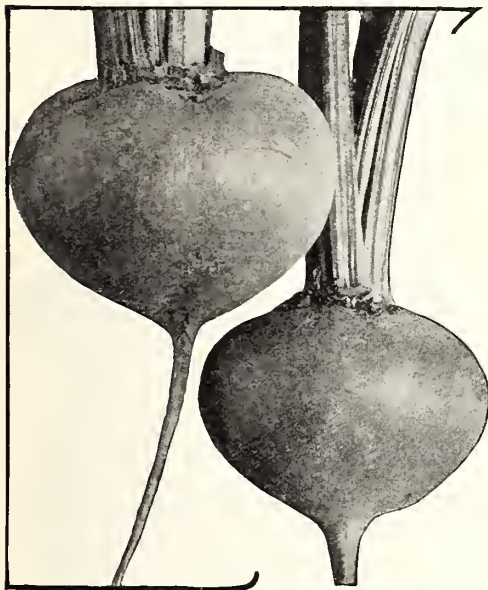
Long Red Mangel-Wurzel

# BEETS

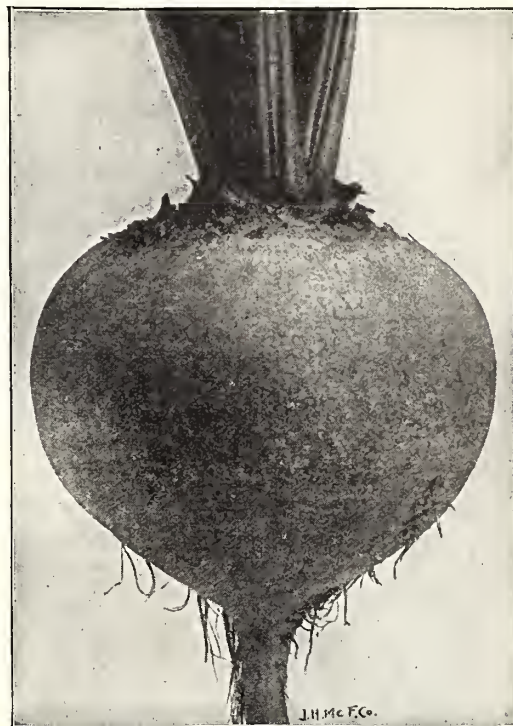
All seeds postpaid except  
Peas, Corn and Beans

But little space is required to grow a good crop of Beets, and almost any soil will do, although the ground should be dug deeply and made fine and mellow with fork and rake if you want smooth, tender, well-developed roots. Make a first sowing as early in the spring as the ground can be worked. Scatter the seed in drills 15 to 18 inches apart, covering the seed about an inch deep and pressing the soil down firmly above it. When the seedlings are about 3 inches high, thin them out so that they will stand 3 to 4 inches apart in the row. The little Beets and "greens" removed in thinning, cooked together, make a delicious dish. Frequent cultivation will help to bring the crop along rapidly. As you harvest the Beets, pull out alternate plants, thus leaving more room for the rest to develop. You can insure a continuous supply of fresh young Beets for the table by making sowings every three to four weeks from early spring up to the middle of July. Late in June make a large planting to produce Beets for winter use. They should be harvested before frost and stored in pits outdoors, or in a dry cellar, covered with sand to prevent shriveling or drying out.

If you want to beat your neighbor with early Beets in the spring, start some seed in a coldframe or in a box indoors in February or March and reset the plants in the open garden early in April.



Crosby's Extra-Early Beet



Detroit Dark Red Beet

## CROSBY'S EXTRA-EARLY.

The standard early variety for both home-garden and market use. A very superior selection from the old flat Egyptian, being more globe-shaped, nearly as early, and of better quality. The skin is dark red and the flesh deep red.

Our stock is highly bred and runs very uniform in shape and size. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**EXTRA-EARLY EGYPTIAN.** One of the earliest varieties, making medium-sized, flat, smooth roots with dark crimson skin and flesh. Fine for first crop. Specially adapted for transplanting from hotbeds in early spring. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. 90 cts.

**EARLY MODEL.** An extra-early Beet that is top-notch in quality. The roots are uniformly globe-shaped, with smooth, dark red skin and fine-grained, crimson flesh, very sweet and tender. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**EARLY ECLIPSE.** An old favorite, growing quickly to large size. The roots are nearly round, slightly pointed; flesh bright red but not so dark as the Egyptian types. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. 90 cts.

**EARLY WONDER.** A new strain of Crosby's Egyptian Beet. Smooth, dark red flesh. Early. Extra-good for market-gardeners. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**EARLY BLOOD TURNIP.** An old standby; round with small tap-root, dark red skin and bright red flesh of good quality. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. 90 cts.

**DETROIT DARK RED.** This improved strain of the old Blood Turnip Beet is undoubtedly the most popular variety in cultivation. It is early, smooth, and uniformly globe-shaped, with dark red skin and flesh, fine-grained, tender and sweet; an ideal Beet for every purpose. If you grow only one Beet we recommend Detroit Dark Red. Excellent for winter keeping. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**CRIMSON GLOBE.** A medium-early Beet of good globe shape and dark red skin and flesh. Popular with market growers. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. 90 cts.

## SWISS CHARD

This is a kind of beet which does not make edible roots but produces instead quantities of large leaves which are prepared like spinach. In addition, the stems and midribs make a palatable dish when stewed like celery. With growing appreciation of the valuable part that "greens" play in our diet, Swiss Chard has become one of our most popular vegetables. The seed should be sown in early spring and given the same culture as beets, except that the plants should be thinned to stand 8 to 10 inches apart. Pull the leaves off as they become ready and new ones will grow in their place.

**WHITE, or SILVER.** Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.



Swiss Chard



Early Flat Dutch



Copenhagen Market



## OUR FROST-PROOF CABBAGE PLANTS

*Will Mature Heads Two to Three Weeks Earlier Than Your Home-Grown Plants and Double Your Profits*

**OUR GUARANTEE.** We will refund the purchase price to any customer who is dissatisfied with results produced when crop is matured. A person wanting extra early Cabbage for home use or market **CAN'T AFFORD NOT TO USE THESE PLANTS.**

There are a number of islands along the seacoast of South Carolina where the soil and climatic conditions are just suited for growing tough, hardy Cabbage plants during the winter and early spring. The seed is planted in the open field during the months of October, November, December, January, and February. The plants make a slow but steady growth, until at eight to ten weeks of age they are very tough and hardy, the buds are purple and the outer leaves a reddish brown. When in this condition they can be shipped to territory farther north and be planted in the open ground a month to six weeks sooner than the home-grown hotbed or coldframe plants. These **Frost-Proof Cabbage Plants** will stand a temperature of 20 degrees above zero without injury, the land freezing, or the plants being covered with ice, sleet or snow after they are planted will not injure them.

The top of the plant does not grow until your regular spring weather opens up, but the roots grow from the time they are planted, and just as soon as spring weather starts, the estab-

lished root-growth assimilates the fertilizer in the soil, the plants grow very fast, maturing headed Cabbage two to three weeks sooner than you can mature them from hotbed and coldframe plants.

You know what the difference in profit will be if your crop is matured and marketed before the general crop from home-grown plants is matured, but **to get this advantage these frost-proof cabbage plants must be planted a month or six weeks earlier than you would plant home-grown plants** from hotbeds or coldframes.

Our Cabbage plants are grown from the best Long Island grown seed and are shipped direct from our growing station in South Carolina by parcel post or express. We can fill orders from December 1 to May 15.

The plants when received will be somewhat wilted and have a hard, stunted appearance, which will be disappointing to persons who have never used these plants before. Regardless of appearance, they will produce the crop results.

**Varieties: EARLY JERSEY WAKEFIELD, CHARLESTON LARGE TYPE WAKEFIELD, COPENHAGEN MARKET, SUCCESSION, and EARLY FLAT DUTCH**

**PRICES BY PARCEL POST, POSTAGE PAID.**—In lots of 100, 200, 300, or 400 plants at 50 cts. per 100 plants; 500 plants for \$1.60; 1,000 or more at \$3 per 1,000 plants.

Orders are filled by the 100, not 250 or 350. These prices are for even quantities of one variety to package; if you ordered 200 of one variety and 300 of another variety you would pay at the 100 rate.

**PRICES BY EXPRESS, BUYER PAYING EXPRESS CHARGES.**—In lots of 1,000 to 5,000 plants at \$2 per 1,000; 5,000 or more at \$1.50 per 1,000. Plants are packed for express shipment, 1,000 or 2,000 plants of a variety to package. They weigh about 25 pounds per 1,000 plants, packed for shipment.

**Order Early to Get Plants Delivered in Time.** When we receive your order for these plants, we have to forward it to our growing station which takes several days. Plants are shipped direct to you from growing station. Plants cannot be pulled or shipped when beds are wet. We sometimes have a week or ten days of continued wet weather which prevents shipment. Orders may be sent any time after receiving our catalogue and plants will be sent when wanted, but shipping date should always be specified on the order.

ORDER OUR HARDY SOUTHERN FIELD-GROWN ONION PLANTS ADVERTISED ON PAGE 21



### **Copenhagen Market Cabbage** (Special Strain)

The earliest of the larger heading cabbages. Is uniformly early with few outside leaves. This strain is the result of years of breeding by European growers. A profitable variety for market-gardeners.

Pkt. 15c.,  $\frac{1}{2}$ oz., 35c., oz. 60c.,  
 $\frac{1}{4}$ lb. \$2, lb. \$7

### **Early Wonder Beet**

A special selection from Crosby's Early. Smooth, dark red flesh. A fine, very early market variety.

Pkt. 10c., oz. 15c.,  $\frac{1}{4}$ lb. 40c., lb. \$1

### **Davis Perfect Cucumber**

A favorite home and market sort. Fruits are uniformly shaped and it is a good bearer and ships well. Medium early.

Pkt. 10c., oz. 15c.,  $\frac{1}{4}$ lb. 40c., lb. \$1.25

### **Danvers Half-Long Carrot**

The standard variety for main crop. Smooth roots of good color and size. An ideal winter keeper.

Pkt. 10c., oz. 15c.,  $\frac{1}{4}$ lb. 35c., lb. \$1





### Golden Sunshine Sugar Corn

Rich golden color. Ears about one inch longer than Golden Bantam and twelve rows instead of eight. Matures about ten days earlier than Golden Bantam and quality is fully equal to the later varieties.

$\frac{1}{2}$ pt. 20c., pt. 35c., qt. 60c., pk. \$3.25, bu. \$12



### Marglobe Tomato

Deep, solid, fine-colored fruits with smooth skin and great substance. Plants unusually resistant to blights. A great producer and very popular market variety.

Pkt. 15c.,  $\frac{1}{2}$ oz. 40c., oz. 75c.,  
 $\frac{1}{4}$ lb. \$2.25, lb. \$8

### Black Beauty Eggplant

Very early; fruits enormous, smooth, fine purple-black, and of high quality.

Pkt. 10c., oz. 50c.,  $\frac{1}{4}$ lb. \$1.50, lb. \$5

### New York or Wonderful Lettuce

Crisp, large-heading variety with creamy heart and extraordinarily fine flavor.

Pkt. 10c., oz. 35c.,  $\frac{1}{4}$ lb. \$1, lb. \$3



# CABBAGE

The chief requisites for growing Cabbage are rich soil and plenty of water. If your soil is hard and poor, add manure, the more the better, and dig it in thoroughly, making the surface as fine and mellow as possible. For early Cabbage, sow seed in hotbed or boxes indoors in January or early February. As transplanting time approaches (about April 15) "harden" the plants by exposing them to the air on warm days so that cold weather or even a light frost will not injure them after they are set out. Start the second crop in March or April. Winter Cabbage is sown in early May and transplanted to the garden in July.

Rows should be at least 2 feet apart, and plants from 1½ to 2 feet apart in the rows, according to variety, the early sorts requiring less space than the large-heading winter Cabbages.

Frequent doses of nitrate of soda will push the young plants along rapidly. The most troublesome pest is the green cabbage worm which, however, is easily discouraged by dusting with powdered arsenate of lead or similar insecticides. Cultivation to keep down the weeds and preserve the moisture in the soil is important. Give water if necessary during the dry spells.

*An ounce of seed will produce 1,500 to 2,000 plants*

**GOLDEN ACRE.** A new early round-headed Cabbage, resembling Copenhagen Market, but 8 to 10 days earlier. Earliness and fine quality make it a leader of the round-headed varieties. Pkt. 10 cts., oz. 50 cts., ¼lb. \$1.50, lb. \$5.

**COPENHAGEN MARKET, SPECIAL STRAIN.** The result of years of breeding by European growers and far superior to the ordinary strain. A profitable variety for market gardeners. (See color illustration facing p. 8). Pkt. 15c., oz. 60c., ¼lb. \$2, lb. \$7.

**COPENHAGEN MARKET.** This highly bred Danish variety has come to be the leading early Cabbage, both for market and home-gardens. It grows rapidly to large size, maturing in about 100 days from sowing, as early as standard strains of Jersey Wakefield. Being of compact growth with few outer leaves, the plants can be set close together. The heads are round, extremely solid, with small core and of excellent quality. Pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$3.

**SELECT EARLY JERSEY WAKEFIELD.** A leader for many years. Matures its rather small, solid, pointed heads in 100 days from sowing. One of the most reliable early sorts, being particularly hardy and resistant to frosts and unfavorable weather. Can be planted close together. Pkt. 10c., oz. 20c., ¼lb. 60c., lb. \$2.

**CHARLESTON LARGE WAKEFIELD.** A selection from Jersey Wakefield, maturing a week to ten days later and producing considerably larger, bluntly pointed heads. Solid and a good shipper. Pkt. 10 cts., oz. 20 cts., ¼lb. 60 cts., lb. \$2.



Danish Ballhead Cabbage



Glory of Enkhuizen Cabbage

**GLORY OF ENKHUIZEN.** A Dutch strain which closely resembles Copenhagen Market, but makes a little larger growth and matures a week to ten days later. Being less particular as to soil, it is a more reliable Cabbage for the home-garden and a splendid second-early for market. The heads are solid and of fine quality. It is a good keeper and is sometimes grown as a winter Cabbage. Pkt. 10c., oz. 25c., ¼lb. 75c., lb. \$2.50.

**HENDERSON'S EARLY SUMMER.** An old, well-known, second-early Cabbage of the flat or drumhead type. The heads are large, flat, and quite solid, weighing from eight to ten pounds each. Pkt. 10 cts., oz. 20 cts., ¼lb. 60 cts., lb. \$2.

**BURPEE'S ALLHEAD.** Heads a little larger and deeper than Early Summer. A select, uniform, sure-heading strain. About ten days later than Jersey Wakefield. Fine for winter if sown late. Pkt. 10 cts., oz. 20 cts., ¼lb. 60 cts., lb. \$2.

**SUCCESSION.** A second-early drumhead variety which is a sure header under all conditions and at all seasons. A little later than Allhead but considerably larger. Pkt. 10 cts., oz. 20 cts., ¼lb. 60 cts., lb. \$2.

**PREMIUM FLAT DUTCH.** One of the best winter Cabbages for the home-garden or market. A heavy yielder, producing large, heavy, flat heads which keep well until late in winter. Pkt. 10 cts., oz. 20 cts., ¼lb. 60 cts., lb. \$2.

**HOLLANDER or Short-Stem Danish Ballhead.** Introduced from Denmark some thirty-five years ago, this Cabbage soon became and still remains the most popular and profitable variety for late market. The heads are of only medium size but round, deep, and solid as a bullet, exceeding all others in keeping quality. On strong lands it produces large tonnages and commands a good price even when others are not salable. Not recommended for poor soil. Pkt. 10 cts., oz. 25 cts., ¼lb. 75 cts., lb. \$2.50.

**PENN STATE BALLHEAD.** A very superior Cabbage developed at Pennsylvania State College. The hard, tight heads weigh one-third more than ordinary heads of same size and are unusually good keepers. Matures in 130 days. Pkt. 10c., oz. 50c., ¼lb. \$1.75, lb. \$6.

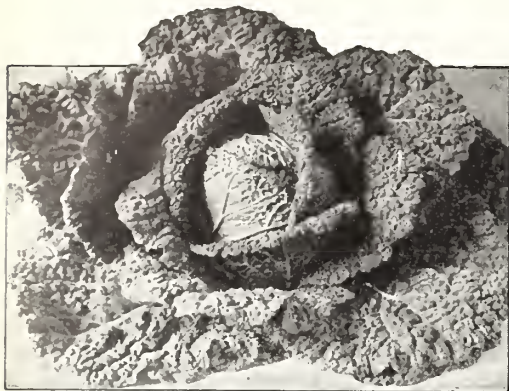
## RED CABBAGE

**DANISH ROUND RED.** A superior strain of Red Cabbage with very hard, perfectly round heads in which the deep color extends clear to the center. Fine for pickling and probably the best of the Red Cabbages, particularly on good soils. Pkt. 10c., oz. 35c., ¼lb. 90c., lb. \$3.

**MAMMOTH ROCK RED.** Heads flattened and very large. A reliable and popular Red Cabbage, well known with market growers. Pkt. 10 cts., oz. 25 cts., ¼lb. 75 cts., lb. \$2.50.

## SAVOY CABBAGE

**AMERICAN DRUMHEAD SAVOY.** The Savoy Cabbages have peculiarly crinkled leaves. Many gardeners grow no other kind for they are considered to excel all other Cabbages in flavor. American Drumhead is undoubtedly the best of the Savoy for all ordinary purposes. It is vigorous and hardy, with large, solid heads and few outer leaves. Generally grown as a late Cabbage as the flavor is enhanced by frost. Pkt. 10 cts., oz. 25 cts., ¼lb. 75 cts., lb. \$2.50. (See illustration on page 10.)



American Drumhead Savoy Cabbage

in every garden. Always recognized as wholesome adjuncts to the diet, they have recently been found to be especially rich in the important vitamins, while no one who has eaten freshly pulled, tender, young Carrots will deny that they make one of the most delicious dishes the garden can supply.

The best crops are grown on soils that were well manured the previous season but good results can be obtained on any good garden soil, providing it is dug deeply and thoroughly pulverized. Freshly manured ground is to be avoided for it will produce split and misshapen roots. Sow the seed any time after the frost is out of the ground, in shallow drills 15 to 20 inches apart, covering it about an inch deep and pressing the soil down firmly over the seed.

When the seedlings are well up, thin them out, leaving them standing about 2 inches apart in the rows. Later on as they begin to reach the edible stage, they may be thinned again, so as to leave at least 4 inches between plants which are to remain until they attain full size. To insure a constant supply, make sowings every three or four weeks from late March to the end of June. Early June is a good time to sow the main crop for roots to be stored like beets for winter use.

*An ounce of seed will sow about 100 feet of drill; 3 to 4 pounds are required to sow an acre*

**EARLY SCARLET HORN, BLUNT ROOT.** A quick-growing variety which makes thick, blunt-ended roots about 3 inches long, deep reddish orange in color, and of excellent quality. A fine Carrot for early use and for forcing in frames. Tops small. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. \$1.

**EARLY SCARLET HORN, POINTED ROOT.** Like the preceding, except that the root is a little longer and tapers down to a point. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. \$1.

**DANVERS HALF-LONG.** The most popular Carrot for the main crop, being a reliable, heavy-yielding variety of excellent quality and attractive appearance. The roots are smooth, nearly cylindrical, bluntly pointed, and in good soil will attain a length of 6 to 8 inches. The skin and flesh are bright orange-red, fine-grained and tender. Market-gardeners find it an ideal variety for bunching and it is a splendid winter keeper. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. \$1.

**CHANTENAY.** Grows more quickly than Danvers and the roots are shorter but broader at the top, tapering to an abrupt point. It produces heavy yields on comparatively shallow soils. Chantenay is largely grown by market-gardeners and is a splendid main-crop Carrot for the home-garden. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. \$1.

**HALF-LONG LUC.** A French variety of the Danvers type, noted for its superior quality. It is a little earlier than Danvers, not quite so long and more nearly cylindrical, remarkably smooth and uniform in shape and size. The flesh is deep in color, very sweet and tender, and almost entirely free from core. Not so hardy as other main-crop Carrots but will produce big crops on well-prepared soil. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. \$1.

**ST. VALERY.** A medium-long, tapering or pointed Carrot of fine quality; the most desirable of the pointed Carrots for home-garden and critical markets. The roots grow about 10 inches long and are unusually smooth and symmetrical, deep reddish orange in

color, and very attractive in appearance. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. \$1.

**IMPROVED LONG ORANGE.** A fine strain of the pointed type, producing large, tapering roots, 12 to 14 inches long, smooth, bright orange in color and of good quality. On deep, mellow soils it will yield enormous crops. Besides being an excellent table Carrot, it is much planted for feeding to stock. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. \$1.

**FARM AND GARDEN BOOKS.** See page 208 for our list of the best Farm and Garden Books; Poultry Books, page 207.

## CHINESE or CELERY CABBAGE

**PE-TSAI.** Produces heads which resemble giant cos lettuce, often 2 feet high and 6 inches or more in diameter. It develops best in the fall. Sow the seed the last of June or early in July, in shallow drills about 2 feet apart, and thin or transplant the seedlings to stand about 15 inches apart. The outer leaves may be used as a salad while the plants are growing and the heads, which are quite solid and beautifully blanched within, have a delicious flavor either as a salad or cooked like asparagus. Gardeners who have not yet tried this fine, easily grown vegetable should plan to sow a few rows of it this summer. It can be grown in the rows left vacant after the early spring crops have been harvested. Pkt. 10 cts., oz. 30 cts.,  $\frac{1}{4}$  lb. \$1, lb. \$3.50.

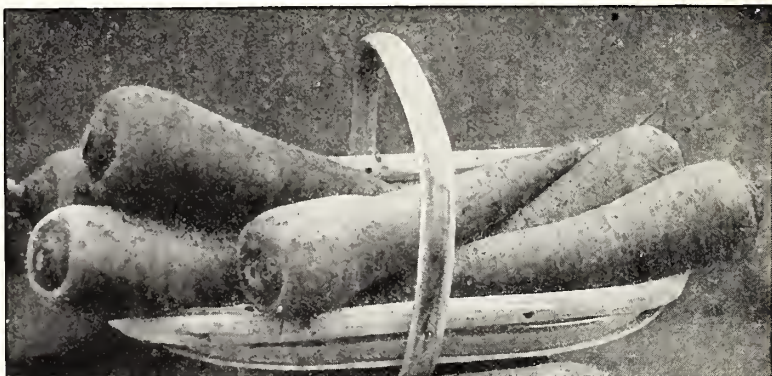


Pe-Tsai Chinese Cabbage

## CARROTS



Danvers Half-Long Carrots



Improved Long Orange

## CELERY

Celery is an aristocrat among the garden vegetables—one of the crops the real gardener boasts about. Yet, it is by no means so hard to grow as many people think. And home-grown Celery is certainly worth a lot of trouble. In the first place, Celery wants plenty of fertilizer—enrich the spot where you are going to grow it with manure, humus, or rich compost, or if you lack these, with a commercial fertilizer high in nitrogen. On heavy clays, manure or humus is particularly needful. Celery seed is rather slow and irregular in sprouting. For early crops sow indoors or in a hotbed about March 1, barely covering the seed with soil. When the seedlings are 2 to 3 inches high, thin them out or transplant them  $1\frac{1}{2}$  to 2 inches apart. "Harden" them by exposing to the air more and more as the season progresses and by the end of May they should be ready to go out in the garden. For winter Celery, sow seed in a coldframe or sheltered spot in the garden about mid-April and reset in the trenches about July 1. It is a good plan to cut off the tops of the plants when they are 4 or 5 inches high to make them more stocky.

When ready to transplant to the garden, dig the soil deeply, pulverize it thoroughly, and then make trenches about 6 inches deep and 6 inches wide at the bottom, spacing them 3 to 5 feet apart. Set the plants 6 to 8 inches apart in the bottom of the trenches, firming the soil about them. Do not work around the plants or permit dirt to get on the leaves when they are wet. Commencing when the plants are about half-grown, fill in the trenches and pull dirt up around them gradually, until finally all but the top leaves are covered, but be careful not to let dirt get into the heart. This process not only blanches the stalks and heart but brings out the rich Celery flavor. The same result may be secured by the use of paper Celery bleachers or by placing boards, 10 to 12 inches wide, against the plants on either side. For winter use store in the cellar or leave banked up in the trenches, cover with straw or loose litter to prevent freezing and with boards on top to keep out rain.

*An ounce of seed will produce 3,000 plants; one-half pound is required for an acre*

**EASY BLANCHING.** An ideal Celery for the home-garden and a leading variety for market, combining hardiness, early maturity, and good keeping quality with ease of blanching and fine flavor. The stalks are of medium height, thick through, and brittle; the heart is heavy, blanching quickly to a clear light yellow. Less liable to blight than other sorts, and good for both early and late crop. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$  lb. \$1, lb. \$3.

**GOLDEN SELF-BLANCHING.** One of the finest early Celeries in cultivation; a favorite for early market. It is rather low and compact in growth, with thick, round stalks and heavy heart, blanching easily to a rich golden yellow. In flavor and quality it is unsurpassed. Our stock was grown in America from a superior strain of French-grown seed. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**GOLDEN PLUME or WONDERFUL.** A new Celery, resembling Golden Self-Blanching in crispness and flavor, but much larger and ranker in growth, blanches quicker and matures earlier. It is also more blight-resistant than Golden Self-blanching. Equally good for the market and home-gardeners. Pkt. 15 cts., oz. \$1,  $\frac{1}{4}$  lb. \$3.25, lb. \$12.

**WHITE PLUME.** A very early, easily grown variety with tall, handsome stalks which blanch quickly to a silvery white. A favorite. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$  lb. \$1, lb. \$3.



Easy Blanching Celery



Celериac

**GOLDEN DWARF.** Somewhat similar to Golden Self-blanching but more dwarf in growth; thick stalks, very solid and of fine quality, blanching to golden yellow. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$  lb. \$1, lb. \$3.

**GIANT PASCAL.** A fine, late Celery with broad, thick, heavy stalks of superb nutty flavor; blanches yellowish white. A good winter keeper, retaining its flavor and crispness in storage; popular for market. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$  lb. \$1, lb. \$3.

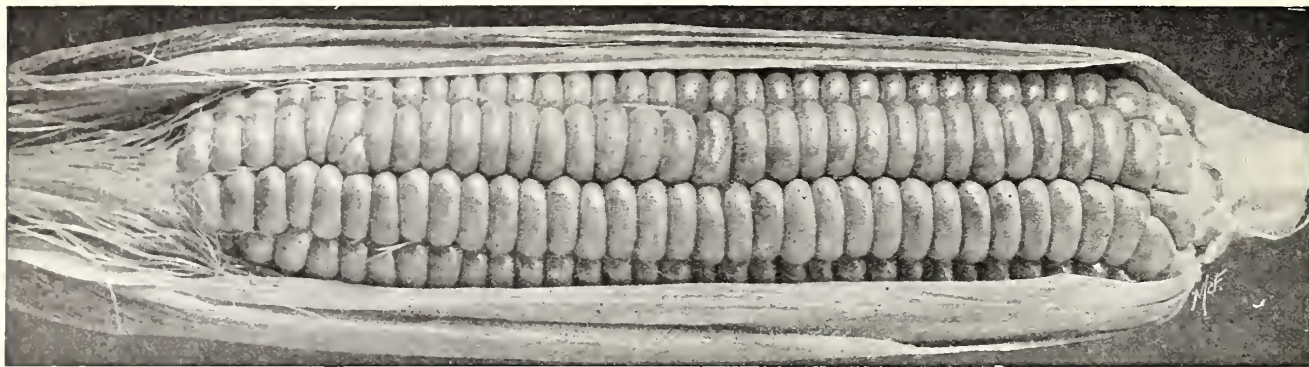
**FORDHOOK.** A distinct variety of remarkably fine quality. Stalks smooth, entirely free from stringy fibers, and  $1\frac{1}{2}$  inches through when cut. Blanching pure white but heart has a tinge of light, buttery yellow. Unsurpassed in its crisp, nutty flavor and will keep in good condition late in spring. So solid that stalks weigh fully two pounds. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$  lb. \$1, lb. \$3.

**WINTER QUEEN.** Another late sort of strong, compact growth; solid and excels in keeping quality. Medium in height with thick, brittle stalks. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$  lb. \$1, lb. \$3.

## CELERIAC or TURNIP-ROOTED CELERY

The roots—not the stalks—are the edible portion of this plant. They are used for flavoring soups and in stews, in place of Celery or celery seed, and are also cooked or used as a salad. Grown like Celery but does not require blanching.

**LARGE PRAGUE.** A productive variety with large, round, smooth roots, free from side shoots. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$  lb. \$1, lb. \$3.



Golden Bantam Sweet Corn

## SWEET CORN

*One quart of seed will plant 200 to 300 hills or 300 feet of row; 6 to 8 quarts will plant an acre*

The one vegetable which every American gardener wants to grow is Sweet Corn, and, fortunately, it is one of the easiest to grow thriving on most all soils and requiring only a minimum of attention. Since the seed is rather tender, do not make the first sowing until the soil is warm and comparatively dry—the middle of May is usually the earliest it is safe to sow Corn in this section. It can be grown in hills or in rows, the latter method being usually preferred. Hills are placed 2 to 3 feet apart each way, dropping about six seeds in each hill and, when the plants are about 8 inches high, pulling out all but the three or four strongest. Rows are spaced  $2\frac{1}{2}$  to  $3\frac{1}{2}$  feet apart and the plants thinned to stand 12 to 15 inches apart in the rows. Generally speaking, the late varieties grow larger and require more room than the early sorts. In planting, cover the seed about 2 inches deep, or a little deeper if the weather is very dry. Growing Corn requires lots of water. To preserve all the moisture in the soil and, incidentally, keep down weeds, hoe or cultivate frequently, taking care, however, not to go too deep as Corn roots spread out close to the surface. In order that the ears may develop perfectly they must receive plenty of pollen from nearby stalks; consequently, it is always best to plant Sweet Corn in several short rows, side by side, rather than in one or two long rows. Many gardeners plant only one or two quick-maturing varieties, securing a continuous supply by making sowings every ten days or two weeks from mid-May to early July. Others follow the plan of sowing, all at one time, a number of sorts which will mature in succession. If you want to enjoy Sweet Corn far sweeter and richer than any you have ever been able to buy, grow it yourself and pick it just before it is to be cooked.

**GOLDEN SUNSHINE.** (See illustration in color opposite page 9.)

An improvement on Golden Bantam in that the ears are an inch longer, 12-rowed instead of 8-rowed, and it matures about 10 days earlier. It is an attractive golden yellow and equal in quality to the later varieties.  $\frac{1}{2}$ pt. 20 cts., pt. 35 cts., qt. 60 cts., pk. \$3.25, bus. \$12.

**WHIPPLE'S EARLY YELLOW.** Ears about twice the size of Golden Bantam, 12 to 16-rowed, of very fine quality. Matures in about 85 days.  $\frac{1}{2}$ pt. 20c., pt. 30c., qt. 50c., pk. \$2.75, bus. \$10.

**GOLDEN BANTAM.** For many years Golden Bantam has represented the very acme of Corn quality, and its delicious little golden yellow ears are known wherever Sweet Corn is grown. It is one of the quickest to mature its crop, and, since the seed is hardy and can be planted a week or so earlier than other sorts, it can always be depended upon to supply the first true Sweet Corn of the season. A great favorite in the home-garden and always in demand on the market.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**DELUE'S GOLDEN GIANT.** Undoubtedly the finest Sweet Corn now in cultivation! The result of sixteen years of rigorous scientific breeding, it is as sweet, tender, and rich in flavor as

the famous Golden Bantam, practically as early, more productive, and much larger.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**BARDEN'S WONDER BANTAM.** An excellent variety for home or market growers. Large yellow deep grains. Ears a third larger than Golden Bantam, often 8 to 10 inches long. Stalks 5 to 6 ft. high. Just as early as Bantam and equal if not superior in quality.  $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$9.

**GOLDEN EVERGREEN.** A fine, large-eared, deep-grained yellow Sweet Corn, produced by crossing Golden Bantam and Stowell's Evergreen. A midseason Corn that remains tender and sweet for a long time after it reaches full size.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**GOLDEN CREAM.** The result of a cross between Golden Bantam and Country Gentleman. It is about the same size as Bantam but later, and has the irregular or "shoe-peg" kernels of Country Gentleman. Deep creamy yellow; extra-fine quality.  $\frac{1}{2}$ pt. 15c., pt. 25c., qt. 40c., pk. \$2.25, bus. \$8.

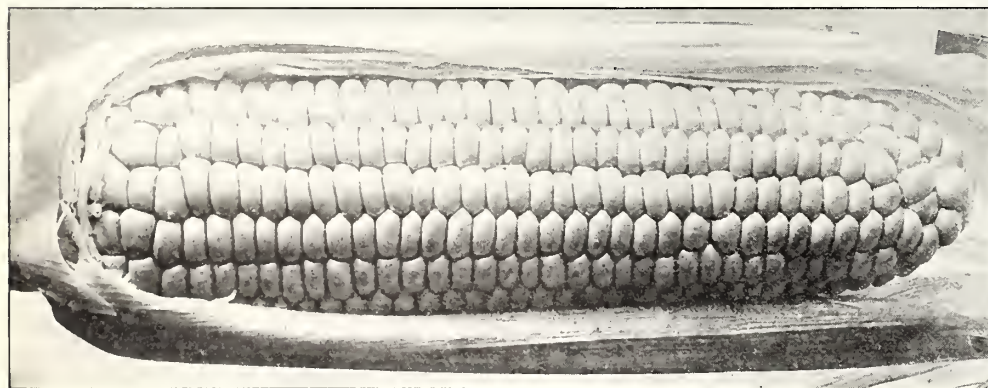
**EARLY MAYFLOWER.** The earliest white Sweet Corn that produces an ear of good size and quality. Medium in growth,

productive and hardy, bearing ears 7 inches long with 8 or 10 rows of broad, tender, pure white kernels. Fine for first early.  $\frac{1}{2}$ pt. 20c., pt. 30c., qt. 50c., pk. \$2.75, bus. \$10.

**EARLY CORY.** An old standby for first crop. A few days later than Mayflower; hardy; ears 6 to 7 inches long and 8-rowed.  $\frac{1}{2}$ pt. 15c., pt. 25c., qt. 40c., pk. \$2, bus. \$7.

**PEEP O'DAY.**  $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$9.

**EXTRA-EARLY MINNESOTA.**  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.



DeLue's Golden Giant Corn

**PREMO.** Long, slender, 8-rowed ears with short, broad grains, very sweet and tender. A little later than Peep o' Day.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**POCAHONTAS.** A good second-early for market with ears of medium size and good quality. Hardy and somewhat resembles Extra-Early Minnesota.  $\frac{1}{2}$ pt. 15c., pt. 25c., qt. 50c., pk. \$2.75, bus. \$10.

**FORDHOOK.** About a week later than Mayflower, with large 8-rowed ears. Cob small; grains broad and deep; quality fine.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 50 cts., pk. \$2.50, bus. \$9.

**KENDEL'S EARLY GIANT.** One of the most popular of the medium-early white Sweet Corns for market. Ears 8 to 9 inches long and 12-rowed, of good quality and very productive.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**HOWLING MOB.** Undoubtedly the finest of the medium-early varieties, unusually large for so early a sort and not surpassed in quality by any other white Sweet Corn. It comes in about 12 days after Mayflower. The best second-early Sweet Corn for the home-garden and extensively planted for market.  $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$9.

**EARLY CHAMPION.** Ready for use about the same time as Howling Mob; ears large, 14 or 16-rowed, well filled with large, broad grains of good quality.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

## MEDIUM AND MAIN-CROP SWEET CORNS

**EARLY EVERGREEN.** An early selection of the old standby, Stowell's Evergreen. A vigorous, productive strain, not quite so tall but several days earlier than Stowell's, bearing large ears of typical Evergreen type and quality.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**SCOTT'S EARLY PERFECTION.** Introduced by us about eighteen years ago, this variety has grown in popularity every year it has been in cultivation. As an early main-crop White Sweet Corn it has no superiors for either home or market use. It follows close after Howling Mob.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**EARLY MAMMOTH.** The earliest of the so-called Mammoth varieties. Coming in with Early Evergreen, it produces heavy ears 9 inches long with very broad grains of delicious quality.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**COLUMBUS MARKET.** One of the best main-crop market varieties. A shade earlier than Stowell's Evergreen, with ears 10 to 12 inches long, 14-rowed; grains pure white, large and deep, very sweet and tender.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**SHEDAKER'S CHOICE.** A few days later than Adam's Early and ears much longer—from 12 to 14 inches. The ear is thick, with straight, uniform rows of grains. This Corn is slightly sweet, resembling Sugar Corn, and produces two and often three good ears to the stalk.  $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.75, bus. \$10.

**STOWELL'S EVERGREEN.** The old, reliable, ever-popular late variety. The ears are 8 to 10 inches long with 16 to 18 rows of very deep, sweet kernels. It remains tender and sweet for a long time.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**WHITE EVERGREEN.** An exceptionally sturdy and productive strain of Stowell's, bearing a slightly larger, broader ear and broader, whiter grain. Of high quality and perhaps the best for canning.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**ZIG-ZAG EVERGREEN.** Similar to Stowell's except that the ears are densely covered with slightly deeper and narrower kernels. Fine quality.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**LATE MAMMOTH.** The largest of all Sweet Corns and one of the very finest in quality. Ears often 12 inches long, deliciously sweet. A week or ten days later than Evergreen.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

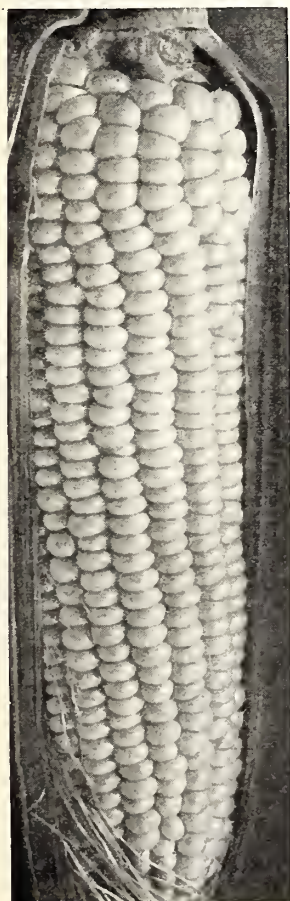
**COUNTRY GENTLEMAN.** The favorite main-crop Corn with many gardeners, on account of its fine rich flavor. The ears are 7 to 8 inches long with long, narrow kernels set densely and irregularly on a very small cob. Often called "Shoe-Peg."  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2.25, bus. \$8.

**BLACK MEXICAN.** The ears are of good size with broad kernels which are bluish white when they reach the edible stage and turn violet when cooked. Not desirable for market on account of its color but its distinct flavor makes it a great favorite for the home-garden.  $\frac{1}{2}$ pt. 20 cts., pt. 30 cts., qt. 50 cts., pk. \$2.50, bus. \$9.

**EXTRA-EARLY ADAMS.** Not a true Sweet Corn but extremely hardy and early. It thrives in weather too cold and wet for other varieties, so may be planted earlier and grown in climates where true Sweet Corn does not mature. Often planted for first market.  $\frac{1}{2}$ pt. 15 cts., pt. 25 cts., qt. 40 cts., pk. \$2, bus. \$7.

## POP-CORN

**WHITE RICE.** The most popular sort for general use. Productive; popping quality excellent. Prices shelled, lb. 15 cts., 2 lbs. 25 cts. By mail, lb. 23 cts., 2 lbs. 35 cts.



Stowell's Evergreen



Scott's Early Perfection Sweet Corn

## CAULIFLOWER

Rich soil, plenty of moisture, and cool weather at the time of heading are required to grow good Cauliflower. In this part of the country it is advisable to time the sowing so that the plants will mature either before the hot, dry days of midsummer or in the fall. Sow the seed and treat the young plants exactly as you would cabbage, starting the spring crop in flats indoors or in the hotbed early in February and transplanting to the garden in May after danger from frost is past. Sow for fall crop in coldframe or seed-bed in May and transplant in July. When you set the plants out, space them about 1½ feet apart in rows 2 feet apart, digging in plenty of manure if it is available. When the plants show signs of heading, water them freely. Finally, when the heads are about 2 inches in diameter, tie the outer leaves loosely together over the top with a soft twine, to protect them from the sun and blanch them white.

*An ounce of seed will produce about 2,000 plants*

**SELECT EARLY SNOWBALL.** Extra-early and generally considered to be one of the surest headers. It produces deep, solid heads of medium size, pure white, and of fine quality. Being compact in growth, with small outer leaves, the plants can be set close together. Forces easily and is often grown in greenhouse or frames. Snowball is the most popular Cauliflower with the commercial growers and is for either early or late crop in the home-garden. Pkt. 40 cts., ¼oz. 75 cts., oz. \$2.50, ¼lb. \$8, lb. \$30.



Select Early Snowball Cauliflower

**DANISH GIANT, or Dry Weather.** A little later than Snowball and the plants are larger. Preferred in some sections because it will grow and head during dry weather. Pkt. 40 cts., ¼oz. 75 cts., oz. \$2.50, ¼lb. \$8, lb. \$30.

## CUCUMBERS

A dozen or so good, strong plants on well-dug, moderately rich soil will produce all of the pickles and slicing Cucumbers the average family will want. For an extra-early crop, start indoors or in a frame about April 1, sowing the seed in paper pots or dirt-bands or on the bottom of inverted sods, and transplant to the garden the latter part of May, moving sod and all in order to disturb the roots as little as possible. Sow the main crop directly in the garden late in May, and, for a continuous supply, make additional sowings every two weeks up to the middle or latter part of July. For a special crop of pickles, sow seed about July 1. Before setting out the plants or sowing seed in the garden, prepare hills 4 to 6 feet apart, digging up the soil to a depth of a foot or more and mixing in plenty of manure or compost. Cucumber roots grow deep and are not much benefited by surface fertilizing. If the soil is stiff and heavy it will be improved by the addition of sand as well as manure. Leave the soil in the hills loose and a little higher than the general level of the garden. Sow eight to ten seeds in each hill and when the plants come up, thin out all but the strongest three or four. Do not disturb the vines after they have started to spread. Pick the fruits as fast as they become ready for use in order to keep the vines bearing for a long period. If the striped beetles interfere with the development of the young plants, give them a dose of bordeaux-arsenate of lead or tobacco dust.

*An ounce of seed will plant about fifty hills; 2 pounds of seed will be required for an acre*

**DAVIS PERFECT.** One of the best all-round Cucumbers in cultivation, for many years a favorite with home and market-gardeners alike. It is a dependable producer of very long, slender fruits which are rich dark green color and of finest quality. It is a good shipper and holds its deep green color for a long time. Well adapted for greenhouse culture; medium early. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.25.

**IMPROVED EARLY WHITE SPINE.** Extra early and prolific. Produces medium-sized, light green fruits of fine quality for slicing. Good for pickles also, and a popular sort for the home-garden. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**ARLINGTON WHITE SPINE.** A little larger and a little later than Improved Early White Spine; otherwise similar. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.



Improved Early White Spine Cucumber

**EARLY FRAME, or Short Green.** Medium early and quite productive. Fruits about 6 inches long, straight, tapering at both ends, and a little inclined to be three-cornered rather than round. Good for pickling and slicing. Pkt. 10 cts., oz. 15c., ¼lb. 40 cts., lb. \$1.

**EARLY CLUSTER.** Early, compact variety; short, chunky fruits in clusters at the center of the plant. Well adapted for forcing or open ground. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

SPRAY CUCUMBERS WITH PYROX. See page 68

**CUCUMBERS, continued**

**EARLY FORTUNE.** A highly bred variety of the White Spine type. The vines are vigorous, producing big crops of handsome, long, slender fruits, deep green in color and exceedingly uniform in size and shape, with crisp, firm flesh and few seeds. Early, fine for slicing and one of the best for market. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**EXTRA-LONG, or Evergreen White Spine.** A selection from the standard White Spine type, producing fruits 10 to 12 inches long, dark green in color, smooth, and of splendid quality for slicing. Good for late crop and for greenhouse forcing. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**BENNETT'S WHITE SPINE, IMPROVED.** A medium-early, very productive variety which bears handsome, dark green fruits, very uniform in shape and size, about 8 inches long, thick through and blunt ended. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.

**COOL AND CRISP.** An early strain of the White Spine type. Fruits about 8 inches long, thick at the middle but tapering off at the ends; light green in color; quality good. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.

**KLONDIKE.** A medium-early strain of White Spine Cucumber, notable chiefly for its unusually dark green color which it holds for a long time even under the hottest sun. Fruits of good size and shape. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.

**FORDHOOK FAMOUS.** An exceptionally vigorous sort, bearing for a long season. The fruits are of giant size, often 15 inches long, thick through and slightly tapered at the ends, dark green in color and with crisp, solid flesh and few seeds. An ideal home-garden salad Cucumber. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**CUMBERLAND.** Bears medium-sized, straight, blunt-ended fruits thickly set with small spines from end to end. Flesh firm with few seeds, fine for slicing. Prolific. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**LONG GREEN TURKEY.** One of the best for pickles and useful for slicing as well. Late but very productive. The fruits when full grown are 14 to 16 inches long, straight and slender slightly warted, dark green with crisp white flesh. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.



Davis Perfect Cucumbers

**EXTRA-LONG JERSEY PICKLING.** Extensively grown for large pickles. The fruits are slender and tapering, growing 6 inches long, medium green in color. Extremely prolific. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.

**GREEN PROLIFIC, or Boston Pickling.** For small pickles. Produces short, thick, bright green fruits, smooth and symmetrical. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.

**EVERBEARING.** Quite similar to Early Frame, but later, more prolific, and bears for a longer season. Largely grown for pickles. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.

**LIVINGSTON'S EMERALD.** Fruits of good size, remarkably smooth and free from spines, and bright green in color. The vines are vigorous, commencing to bear when quite small. Excellent for small pickles and the ripe fruits make fine sweet pickles. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**JAPANESE CLIMBING.** A good Cucumber for the small garden as the vines can be trained on fence or trellis; in fact, it requires some sort of support. Fruits long and thick, crisp, tender and of fine quality. If kept picked the vines will bear freely all season. Pkt. 10 cts., oz. 20c.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**WEST INDIA GHERKIN, or Bur.** Used for pickles. The vines are luxuriant, bearing quantities of small, nearly round fruits, light green and covered with spines. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 60 cts., lb. \$2.

**CHICORY**

Witloof Chicory

The large-rooted variety is grown for its roots, which may be cooked and served like turnips and they are sometimes dried and used to adulterate coffee. The Witloof variety is highly esteemed as a winter salad, for which purpose the plants are taken up in the fall, cut back nearly to the top of the root, and then covered with soil in a box or trench in a warm cellar. The new leaves, which grow from the old roots in about a month's time, are nearly white, crisp, and of a fine, piquant flavor. Sow Chicory seed in April or May, in shallow drills, and thin the plants to stand 4 to 6 inches apart.

*An ounce will sow about 100 feet of drill*

**LARGE-ROOTED.** Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**WITLOOF.** Sometimes called French Endive. Pkt. 10c., oz. 20c.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**COLLARDS**

**GEORGIA, or Southern.** Largely grown for "greens" in the southern states. Produces a large cluster of tender leaves at the top of its long stem. Sow late in the spring and give the plants plenty of room to develop. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**CORN SALAD**

A hardy, quick-growing plant, popular as a substitute for lettuce in late fall and early winter. Sow the seed early in the fall, in shallow drills, and give plenty of water. Late plants, covered with a light mulch of straw or leaves, will be suitable for use in early spring. *An ounce of seed sows about 100 feet of drill.*

**LARGE-SEEDED.** Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**CRESS** (For peppery salads and garnishes)

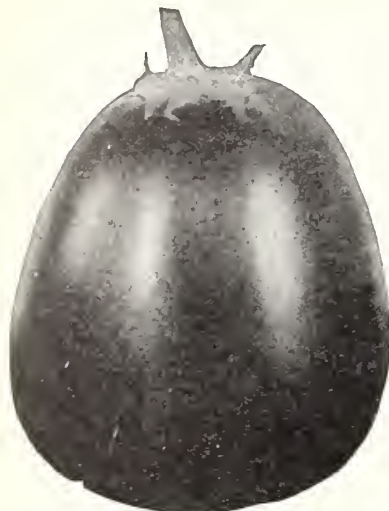
**FINE-CURLED PEPPER GRASS.** Sow the seed any time from early spring on. It need not be grown in rows and requires no thinning. The leaves can be cut several times before the plants begin to form seed. Make sowings every week or ten days, a small patch at a time, for a continuous supply. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 25 cts., lb. 75 cts.

**WATER CRESS.** (True.) Grows in damp places. Sow the seed in shallow water along the bank of a stream. No further care is required after sowing. Pkt. 15 cts., oz. 60 cts.,  $\frac{1}{4}$ lb. \$1.75, lb. \$6.

**DANDELION**

The cultivated form is much larger and heavier than the common wild Dandelion. If the leaves are tied together, the center of the plant will blanch as white and clear as endive. Sow the seed early, in shallow drills, in rich soil, and thin the plants to stand about 1 foot apart. Cultivate frequently and keep out weeds. *An ounce of seed will sow about 100 feet of drill.*

**IMPROVED FRENCH.** Pkt. 15c., oz. 60c.,  $\frac{1}{4}$ lb. \$2, lb. \$7.



New York Improved Eggplant

thin the plants to stand 10 to 12 inches apart in the rows. When full grown, tie the tips of the outer leaves together over the center of the plant (when the leaves are dry), to blanch the heart, which will take about a week's time.

**GREEN CURLED.** The hardiest and most vigorous kind. The plants are large and handsome, with finely cut and fringed, dark green leaves. The heart blanches easily to clear white. Quality fine. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 50 cts., lb. \$1.50.

**WHITE CURLED.** Foliage is a little finer than the Green Curled and the inner leaves become creamy white without blanching. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 50 cts., lb. \$1.50.

**BROAD-LEAVED (ESCAROLLE).** The leaves are broad and quite thick and heavy, slightly twisted and scalloped. Medium green in color, blanching readily, and of good quality. Used as a winter salad and also cooked like spinach. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 50 cts., lb. \$1.50.

## KALE (Borecole)

Makes delicious "greens" for fall and early spring use. For the fall crop, sow seed in May in shallow drills and thin or transplant to stand about 2 feet apart each way. Cultivate like Cabbage. Light frosts will not injure Kale but, on the contrary, improve its flavor. For early spring use, sow in September and protect over winter.

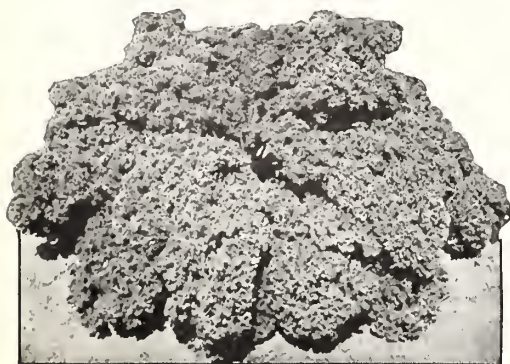
*An ounce will sow about 300 feet of drill; 4 pounds will sow an acre*

**DWARF CURLED SCOTCH.** Extremely hardy and fine for early winter use. Grows 15 to 18 inches high and produces a heavy crop of beautifully curled, bright green leaves, tender and of fine flavor. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.

**TALL CURLED SCOTCH.** Like the dwarf form but grows about 2½ feet high. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.

**SIBERIAN.** The hardiest form, especially desirable for fall sowing. The leaves are scalloped and somewhat curled but not so finely fringed as the Scotch varieties; dark green. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. \$1.

**DWARF GERMAN.** Low and compact in growth, with finely curled, yellowish green leaves. Nice for garnishing. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. \$1.



Dwarf Curled Scotch Kale

## EGGPLANT *An ounce of seed will produce about 1,000 plants*

Eggplant is a warmth-loving vegetable, growing best in a light, mellow, well-enriched soil. Since it requires a long growing season and plenty of heat at the time the fruits are developing, it is necessary to start the seed in March, in hotbeds or boxes indoors. Push the seedlings along with plenty of light, heat, and moisture, and when they are about 3 inches high, transplant them to 3- or 4-inch paper pots or dirt-bands. Early in May, commence to "harden" the plants gradually, by exposing them to the air on warm days, but protect them carefully from chills and drafts at all times. Set them out in the garden about June 1, spacing them 2 to 2½ feet apart each way. Disturb the roots as little as possible in transplanting, and water freely.

**NEW YORK IMPROVED SPINELESS.** A very productive sort, bearing large, smooth, dark purple fruits of good size and quality, six to eight fruits to the plant. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**BLACK BEAUTY.** A favorite in home-gardens; a week to ten days earlier than the preceding. Fruits are of enormous size, smooth, purplish black in color and of fine quality. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

## ENDIVE *An ounce of seed will sow 150 feet of row; 3 pounds will sow an acre*

An appetizing and healthful salad which is grown principally for fall and early winter use, as the plants are hardy and develop perfectly in cool weather. Sow the seed any time from early April to the end of July, the best results being usually obtained from late June or early July sowings. Plant in shallow drills about 15 inches apart and



Green Curled Endive

## KOHLRABI

Sometimes called Turnip-Rooted Cabbage. Sow the seed in shallow drills in April, or for extra-early crop start in the hotbed in March. Thin or transplant the plants about 6 inches apart. Kohlrabi grows rapidly and should be used when about half-grown, 2 to 2½ inches in diameter. For a continuous supply make sowings every ten days up to the middle of July.

*An ounce of seed will sow about 250 feet of drill*

**EARLY WHITE VIENNA.** The quickest growing and most popular kind for table use. Leaves few and small; bulbs of medium size with white skin and flesh, tender and of delicate flavor. Pkt. 10 cts., oz. 30 cts.,  $\frac{1}{4}$  lb. 75 cts., lb. \$2.50.

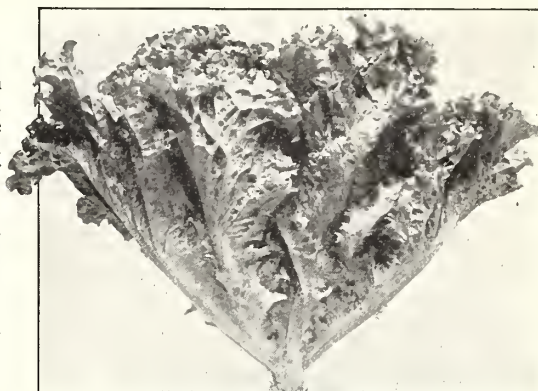
**EARLY LARGE PURPLE.** A little later and larger than the White Vienna, and a reliable sort. Skin purple; flesh white. Pkt. 10c., oz. 25c.,  $\frac{1}{4}$  lb. 75c., lb. \$2.50.

**LARGE GREEN.** Generally used for stock-feeding. Produces large bulbs with greenish white skin; rather tough when full grown but suitable for table use when small. Pkt. 10 cts., oz. 25 cts.,  $\frac{1}{4}$  lb. 75 cts., lb. \$2.50.

# LETTUCE

By starting seed for the first crop in the hotbed or in flats in the house in February or early March, and by carefully choosing varieties which will furnish a succession of crops in the garden, one may have fresh Lettuce for the table from May to November. Make the first sowing outdoors as soon as the ground can be put in shape, making the seed-bed as fine and mellow as possible. Scatter the seed in shallow furrows at least 15 inches apart, and cover lightly. As soon as the plants are big enough, thin them out to stand 3 to 4 inches apart. Then, when they begin to touch each other in the row, use alternate plants, leaving 8 to 12 inches, depending on variety, for the remainder to develop. Cultivate constantly. Remember that prompt thinning to provide room and frequent cultivation are the two great essentials in growing good Lettuce. An occasional sprinkling of nitrate of soda will pay in producing earlier and better crops.

The quickest and easiest Lettuces to grow are the non-heading Loose-leaf or cutting varieties. They are generally preferred for the first sowing outdoors. The Butterhead sorts are second in earliness but first in quality. They do not thrive in hot, dry weather. Use Butterhead varieties for your indoor sowing and for early spring sowing outdoors to succeed the quicker maturing Loose-leaf sorts. They may also be sown in August or early September to mature in the fall. The Crisphead Lettuces require a longer season to mature but are valuable for their comparative resistance to hot weather. Sow these to follow the Butterheads. The Cos or Romaine Lettuces are slow growers but are particularly resistant to heat and drought.



Grand Rapids Forcing Lettuce

**GRAND RAPIDS.** An extremely early Loose-leaf variety, requiring cool weather for its proper development. It is the best variety of its class for forcing and is extensively grown in greenhouses for winter market. Also good for first spring crop in the garden. The plants are large and handsome, with bright green, curled and crinkled leaves. Pkt. 10 cts., oz. 20 cts., ¼lb. 50 cts., lb. \$1.50.



Iceberg Lettuce

**EARLY CURLED SIMPSON.** An early, medium-large Loose-leaf Lettuce with yellowish green, crumpled and frilled leaves of excellent quality. A splendid early garden Lettuce. Pkt. 10 cts., oz. 20 cts., ¼lb. 50c., lb. \$1.50.

**BLACK-SEEDED SIMPSON.** One of the most reliable and productive of the Loose-leaf sorts. The plants are large, with broad, beautifully crumpled and frilled leaves, light green in color and of good quality. This variety will stand more heat than others of its class and is, consequently, desirable for late sowings. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.25.



Big Boston Lettuce. See page 18

**GOLDEN CURLED.** A very handsome, loose-heading Lettuce with greenish yellow, crinkled and frilled leaves. Medium size; crisp and tender. Stands warm weather well and is slow to shoot to seed. Pkt. 10 cts., oz. 25 cts., ¼lb. 75 cts., lb. \$2.50.

**BROWN CHARTIERS.** Similar to the preceding but the leaves are tinged with brown. Neither Chartiers nor Golden Curled are recommended for forcing. Pkt. 10 cts., oz. 25 cts., ¼lb. 75 cts., lb. \$2.50.

**CRISP-AS-ICE.** A popular Lettuce of the Crisphead type which makes a solid head of medium size. Being unusually hardy, it is desirable for fall sowing. The outer leaves are dark bronzy green, crumpled and heavy in texture; inner leaves creamy yellow, crisp and sweet. Pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$3.

**WHITE PARIS COS or Romaine.** Distinguished by its tall, upright growth, with long, narrow leaves. The heads are compact and can be blanched to a clear white by tying the outer leaves together at the top. Cos Lettuce can be grown in the hottest weather and, when properly blanched, it is crisp, tender, and of excellent flavor. Pkt. 10 cts., oz. 25 cts., ¼lb. 75 cts., lb. \$2.50.

**ICEBERG.** A fine variety for the home-garden. Crisphead type, making a very large, solid head even in warm weather. Outer leaves light green, tinged with brown at the edges; inner leaves white, crisp, firm and sweet. Stands for a long time before going to seed. Pkt. 10 cts., oz. 25 cts., ¼lb. 75 cts., lb. \$2.50.

**NEW YORK or Wonderful.** The most largely grown of the Crisphead Lettuces. It grows slowly but makes a fine heavy head and remains in prime condition for several weeks. The outer leaves are dark green and the inner leaves blanch to creamy white. Quality excellent. This is the variety known on the markets as "California Ice Lettuce." Pkt. 10 cts., oz. 35 cts., ¼lb. \$1, lb. \$3.

## LETTUCE, continued

**MAY KING.** An early Butterhead Lettuce of superb quality, and an ideal sort for early spring planting. If grown in cool weather and given ample room and cultivation, it will make very solid heads of medium size, with light green outer leaves and rich golden yellow hearts. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**BIG BOSTON.** Where conditions are favorable, Big Boston is a most dependable producer of very large, compact heads of rich buttery quality. It is a favorite with market-gardeners, particularly in the South, but will not ordinarily "head up" for the home-gardener unless it is started indoors or sown very early so as to mature before warm weather. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 65 cts., lb. \$2.

**BLACK-SEEDED BIG BOSTON.** Similar to the original Big Boston which is white-seeded, but a little coarser in growth and stands longer before going to seed. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 65 cts., lb. \$2.

**LARGE SUMMER CABBAGE.** A better warm-weather Lettuce than other Butterhead sorts. The heads are large, quite solid, medium green in color, blanching to creamy yellow in the heart, and of fine quality. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**MAMMOTH BLACK-SEEDED BUTTER.** A fine outdoor Butterhead Lettuce, making a large, rather loose head of fine texture and flavor. Being quite resistant to heat and slow to seed, it is good for both early and second early crop. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

## LEEK

This relative of the Onion is grown for its thick leaf-stalks, which resemble a giant young onion. Its pungent flavor is much appreciated by many people, and it is widely used for flavoring soups and stews. A light, moderately rich soil is required for best results. Sow the seed in shallow drills early in the spring and when the plants are about 5 inches high, transplant them 6 to 8 inches apart in rows 15 inches apart, and cultivate frequently. At the time of transplanting it is a good plan to cut back the plants about a third of their height. The stalks are best when blanched by drawing earth up around them.

*An ounce of seed will sow 150 feet of row; 4 pounds will produce sufficient plants for an acre*

**LARGE LONDON FLAG.** The hardiest and most generally cultivated variety. Broad stalks of strong flavor. Pkt. 10 cts., oz. 25 cts.,  $\frac{1}{4}$ lb. 75 cts., lb. \$2.50.

**MUSSELBURG.** Grows larger and is milder in flavor than the preceding. Pkt. 10 cts., oz. 25 cts.,  $\frac{1}{4}$ lb. 75 cts., lb. \$2.50.

## MUSKMELON

*An ounce of seed will plant about 50 hills;  
2 to 3 pounds will plant an acre*

Melons grow best in a light, warm, well-enriched soil. Since they cannot be sown outdoors until warm weather, and require a long growing season, it is a good plan, in this part of the country, to start the seed in a hotbed or box indoors, using inverted sods or dirt-bands, as recommended for early cucumbers. Plant them in the garden, in hills 5 to 6 feet apart, digging the soil to a depth of a foot and mixing in plenty of manure or fertilizer with the bottom soil. In sections where the young plants are troubled with insect pests, it will be necessary to sow an excessive number of seeds with the idea of leaving enough plants to produce a crop after the bugs have done their worst. No more than three or four strong plants should be left in each hill. Hoe frequently at first, taking care not to injure the roots which run close to the surface, but do not disturb after the vines begin to spread.

**EXTRA-EARLY HACKENSACK.** A large, round melon, slightly flattened at the ends. The skin is ribbed and netted; the flesh is thick, light green in color, and of good quality. Matures earlier than the old type. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**HACKENSACK, or Turk's Cap.** Larger and later than the preceding. Productive. An old favorite with market gardeners. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

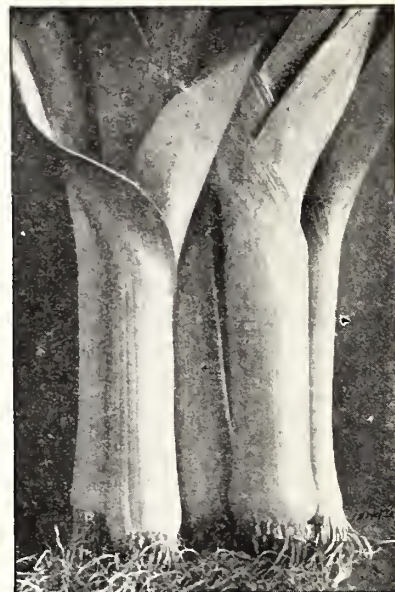
**OSAGE, or Miller's Cream.** A popular market melon, unusually productive and bears for a long season; does well on soils too heavy for other varieties. The fruits are large, slightly elongated, with lightly netted dark green skin and thick, firm, orange flesh of fine flavor. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**EMERALD GEM.** An early, prolific melon. The fruits are small, decidedly flattened and deeply ribbed; the skin is dark green and the flesh is unusually deep and solid, bright orange in color clear to the rind, and of remarkably fine quality. Not a good shipping melon as it remains in good condition but a short time, but a great favorite for home-gardens on light soil. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**TIP-TOP.** Probably the most dependable melon for this region. Medium early and productive, bearing large, round, ribbed and netted fruits with thick, sweet orange flesh. A good market melon and does well on a variety of soils. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**ROCKY FORD.** One of the finest quality melons in cultivation. The fruits are medium small, oval in shape, slightly ribbed and covered with a coarse, gray netting. Flesh green and remarkably sweet. Productive but requires a long season. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**HONEY DEW.** This melon, recently introduced to American gardens, has come into great favor on account of its extraordinary sweetness. The fruits are very large, with thin, hard, smooth, pale green rind and thick green flesh which remains firm and crisp for a long time. Requires a long growing season. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.



Large London Flag Leek



Tip-top Muskmelon

DUST MELONS WITH HAMMOND'S SLUG SHOT. See page 73

## WATERMELON

If you have a sunny, sheltered spot in your garden and are willing to take pains to give the plants a good start, you can grow the finest of Watermelons, even in this northern latitude. In general, Watermelons require the same treatment as muskmelons. Start the plants in a hotbed, if possible, to save time, for they require a long growing season. It is not safe to sow seed outdoors until the last of May. Prepare the hills carefully, spacing them 8 to 10 feet apart and digging them deep, mixing in each a couple of shovelfuls of manure or, if manure is not available, a little commercial fertilizer. Humus material of some kind will have to be added if the soil is heavy. Provide in the sowing for a surplus of plants since some of them are pretty sure to succumb to the attacks of insects. To protect the seedlings as much as possible, sprinkle them with arsenate of lead powder or tobacco dust. A top-dressing of manure will keep the soil in the hill warm and moist; water freely in dry spells. When the vines begin to run, pull out all but three or four of the strongest plants.

An ounce will plant about 20 hills; 4 pounds will plant an acre

**TOM WATSON.** This is the most widely grown variety, the standard market melon of the South. The vines are vigorous, bearing fruits 24 inches long and about 12 inches in diameter, with a thin, tough, mottled green rind and rich red flesh of good quality. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**KLECKLEY SWEETS.** Leading all other Watermelons in sweetness, this is the ideal variety for home-gardens and local markets. The fruits grow about 20 inches long and 10 inches in diameter, with thin green rind and bright scarlet flesh which is deliciously crisp and juicy without a trace of fiber or stringiness. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**SWEETHEART.** Earlier than the above and, for that reason, more suitable for northern gardens. Large, heavy fruits, more nearly round than the preceding varieties, with a thick, mottled light and dark green rind and firm red flesh. Ships and keeps well; quality good. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

## HORSE-RADISH

**MALINER KREN.** The largest and most vigorous variety. Plant in early spring in rich, moist soil. Will produce a good crop in one season. Roots, 35 cts. per doz. (postpaid 45 cts.), \$1.75 per 100 (postpaid \$2), \$12 per 1,000.



Tom Watson Watermelons

## CITRON

A form of melon used only for preserving as the flesh is not edible when raw. Citrons are grown in the same way as watermelons; they are prolific and not so particular as to soil. Home-preserved Citron is much superior to that handled in the stores in a dried or candied form.

**RED-SEEDED.** Flesh firm, with comparatively few seeds. Fruits round and handsome. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**GREEN-SEEDED.** Also called "Colorado Preserving." Fruits large and oblong. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

## MUSHROOMS

Anyone who has a cellar or dark room where the temperature can be kept at from 50 to 60 degrees, can grow Mushrooms of surpassing tenderness and flavor. We furnish special printed directions free with each order, or for 50 cents we will send, postpaid, an illustrated booklet on Mushroom culture which gives the latest improved methods of growing as well as full instructions for preparing for market and receipts for cooking.

**SPORE-CULTURE MUSHROOM SPAWN, NORTHERN-GROWN.** Pure and vigorous. In the form of compressed bricks, each of which will plant about 8 square feet of bed. Brick, 30 cts., 10 bricks, \$2.50, 50 bricks, \$11, 100 bricks, \$20. If wanted by mail, add 10 cts. per brick to cover postage; 3 bricks, 15 cts., 5 bricks, 20c.

## MUSTARD

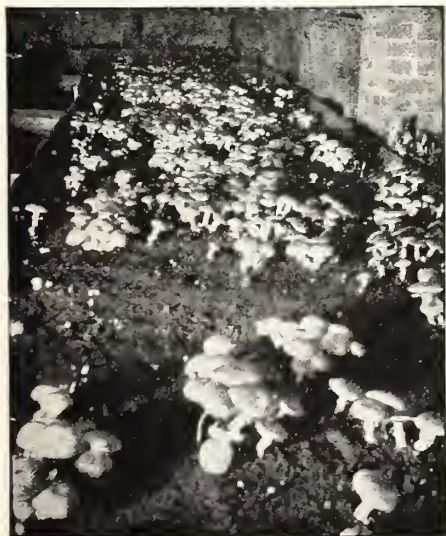
The young, tender leaves make piquant salads and are delicious as well as healthful as boiled "greens." Make frequent sowings during the spring months, commencing as soon as the ground can be prepared, in shallow drills 12 to 15 inches apart. Thin out to 10 inches between plants. Mustard can also be forced in frames or in the greenhouse during winter.

An ounce of seed will sow about 75 feet of drill

**SOUTHERN GIANT CURLED.** The plants grow 2 to 3 feet high, producing quantities of broad, succulent leaves which are handsomely curled and fringed. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 25 cts., lb. 75 cts.

**WHITE CHINESE.** An improved form of the common White Mustard. Leaves broad and smooth, sweet and pungent in flavor. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 25 cts., lb. 75c.

**FORDHOOK FANCY.** A dark green variety of robust growth, more curled on the edges than any other sort. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 25 cts., lb. 75 cts.



Mushrooms



Mustard

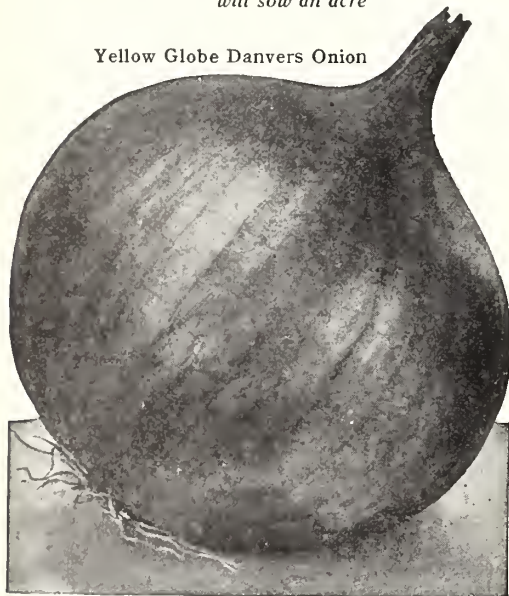
# ONION

The average home-gardener is satisfied to grow small green Onions for the table. They are easily grown from seed sown in fine, well-prepared soil early in the spring. The rows should be 12 to 15 inches apart and the seed covered with a little fine soil pressed down firmly above it. When the seedlings are 3 to 4 inches high, thin them out to stand about 2 inches apart. Cultivate frequently.

**Growing Large Onions from Seed.** Poor or heavy soil will not grow good crops of large Onions without the addition of considerable quantities of old rotted manure, humus, and commercial fertilizer; a rich sandy loam or muck soil gives best results. If possible sow seed in hotbeds early in February, thinning the seedlings enough to prevent crowding, and transplanting to the open ground early in May, spacing them 4 to 6 inches apart, depending on variety. If hotbeds are not available, sow the seed in the garden as early as the soil can be put in shape. Thin promptly and keep the hoe or cultivator busy early and late. Keep down the weeds by frequent hand-weeding, if necessary. When the bulbs begin to ripen or show signs of going to seed in the fall, bend over the tops but do not break them off. After digging, let the bulbs thoroughly dry in the sun before storing them away.

*An ounce of seed will sow about 100 feet of row; 5 to 6 pounds will sow an acre*

Yellow Globe Danvers Onion



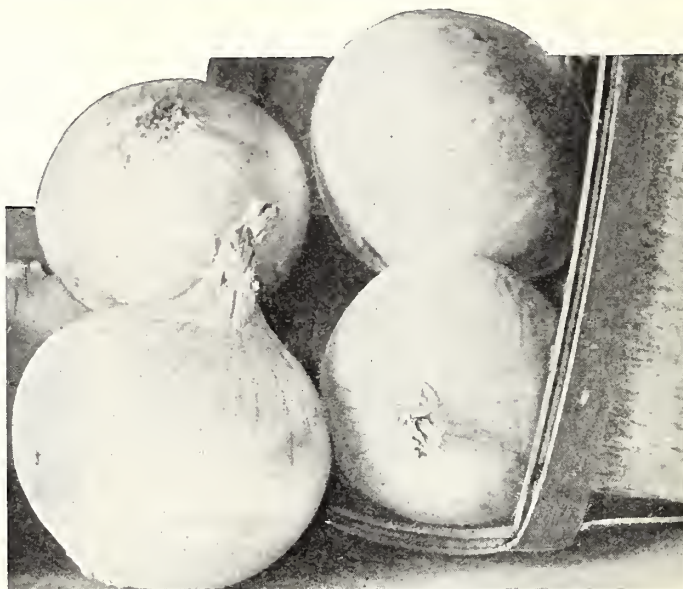
medium size and flat in shape; quality good. Largely sown to produce yellow sets. Pkt. 10 cts., oz. 35 cts., 1/4 lb. \$1, lb. \$3.

**WHITE PORTUGAL, or Silverskin.** A favorite, early, mild-flavored, pure white-skinned Onion, especially desirable for pickling. Full-grown bulbs are large and flat; not a good keeper but extra-fine in quality. If grown for young pickling Onions, sow the seed at the rate of 25 pounds per acre. Pkt. 10 cts., oz. 40 cts., 1/4 lb. \$1, lb. \$3.50.

**SOUTHPORT WHITE GLOBE.** The largest and handsomest of the white Onions, also the best keeper. The bulbs are uniformly globe-shaped with pure white skin and fine-grained, solid flesh of sweet, mild flavor. It grows quickly to the green-Onion stage and is largely sown by market-gardeners for that purpose. Productive and reliable. Pkt. 10 cts., oz. 40 cts., 1/4 lb. \$1.25, lb. \$4.

**WHITE BUNCHING.** A very quick-growing Onion of mild flavor, fine for early spring use. Good size; skin and flesh pure white. Pkt. 10 cts., oz. 40 cts., 1/4 lb. \$1, lb. \$3.50.

**Growing Onions from Sets.** By starting with sets, small green Onions can be produced very early and large Onions can be harvested about August 1. Plant sets as soon as the ground is ready; push them into the soil but do not cover them over, allowing 2 to 4 inches of space between, depending on whether small or large Onions are wanted. See page 21.



Southport White Globe Onions

**EXTRA-EARLY RED.** A flat, medium-sized Onion with purplish red skin and white flesh of good but strong flavor. The earliest of the red Onions. Pkt. 10 cts., oz. 35 cts., 1/4 lb. \$1, lb. \$3.

**LARGE RED WETHERSFIELD.** The most popular large red Onion for home-gardens and northern markets. Similar in shape and color to Extra-Early Red, but larger and about two weeks later. Productive and an excellent keeper. Pkt. 10 cts., oz. 35 cts., 1/4 lb. \$1, lb. \$3.

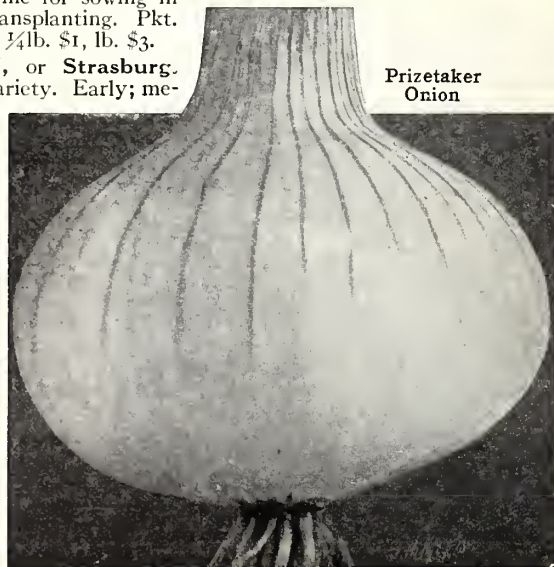
**YELLOW DANVERS FLAT.** Flat bulbs of good size, with thin necks, ripening down hard and keeping well. Skin is straw-yellow; flesh white, fine-grained and mild. Medium early. Pkt. 10c., oz. 35c., 1/4 lb. \$1, lb. \$3.

**YELLOW GLOBE DANVERS.** The standard round Onion for eastern markets and probably the most popular all-purpose variety in cultivation. Productive and medium early; bulbs large, solid, nearly globe-shaped, with yellowish brown skin and pure white flesh, crisp, sweet, and mild in flavor. An excellent keeper and a very reliable Onion for home or market use. Pkt. 10 cts., oz. 35 cts., 1/4 lb. \$1, lb. \$3.

**PRIZETAKER.** A fine selection of the giant Spanish Onion, which will, if planted early and given good cultivation, produce bulbs 4 inches or more in diameter. It makes handsome, uniform, globe-shaped bulbs with thin, pale yellow skin and mild, sweet, white flesh. Prizetaker is a splendid Onion for the home-garden and a good variety to grow for fall and early winter market. Fine for sowing in the hotbed and transplanting. Pkt. 10 cts., oz. 35 cts., 1/4 lb. \$1, lb. \$3.

**YELLOW DUTCH, or Strasburg.** An old standard variety. Early; me-

Prizetaker Onion





Onion Sets

## ONION SETS

We carry an extra-choice grade of Onion Sets in both white and yellow sorts. The prices are quoted below and are subject to change as a shortage is likely to develop later in the season. Ask for special quotation on large quantities.

**WHITE.** Qt. 30 cts., pk. \$1.50, bus. \$5.

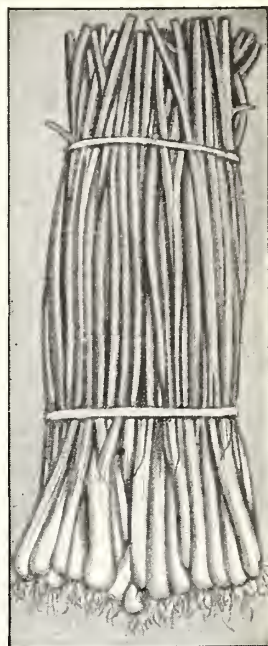
**YELLOW.** Qt. 25 cts., pk. \$1.25, bus. \$4.50.

**POTATO ONION SETS.** Qt. 40 cts., pk. \$2.25, bus. \$7.

The above prices do not include postage. If wanted by mail, add 10 cts. for 1 qt., 12 cts. for 2 qts., 15 cts. for 3 qts.

## ONION PLANTS

These young plants of the Prizetaker and White Bermuda Onions start into growth more quickly and grow more vigorously than dormant sets, and they make very smooth, handsome Onions of uniform size and shape, good sweet flavor, and excellent keeping quality. They are cheaper than sets, quality and yield considered, even on a small garden plot. Perfectly hardy and may be planted as early as the ground can be prepared. Place your order early, specifying which variety you want. Postpaid: 100, 50 cts.; 500, \$1.60; 1,000, \$3. Special prices on larger quantities.



Onion Plants

## OKRA or GUMBO

Grown for its seed-pods, which are pickled when young, before they get tough, and used for flavoring and thickening soups. Popular in the South. Sow late in May, in drills about an inch deep and 2½ feet apart and thin out to about 1 foot apart in the row. For an early crop, start seed in the hotbed late in March.

*One ounce will sow about 25 feet of row; 20 pounds will sow an acre*

**LONG GREEN.** A tall-growing variety which bears quantities of deep green pods that average 4 to 5 inches in length at the edible stage. Slow to ripen. Pkt. 10c., oz. 15c., ¼lb. 25c., lb. 75c.

**DWARF PROLIFIC.** Early and, as the name implies, low in growth and productive. Pods of medium size; light green. Pkt. 10 cts., oz. 15 cts., ¼lb. 25 cts., lb. 75 cts.

## PARSLEY *An ounce of seed will sow 150 feet of drill; 8 pounds will sow an acre*

Everyone wants a little bed of Parsley for flavoring and garnishing. Choose a rich, mellow spot and sow the seed as early in the spring as possible, in drills about a foot apart and half an inch deep. The seed is very slow to germinate, sometimes requiring six to eight weeks. Soaking it in luke-warm water for a few hours before sowing will help to hasten it. When the plants are strong enough, thin them to stand about 4 inches apart. Parsley beds may be carried over winter in a frame or by mulching with leaves or straw.

**DOUBLE-CURLED.** A compact-growing variety with bright deep green leaves that are beautifully curled and fringed. The most attractive Parsley for garnishing. Pkt. 10 cts., oz. 15 cts., ¼lb. 25 cts., lb. 75 cts.

**CHAMPION MOSS CURLED.** A hardy and vigorous sort that can be cut the year around. Leaves attractively crimped and curled. Pkt. 10 cts., oz. 15 cts., ¼lb. 25 cts., lb. 75 cts.

**PLAIN or Single.** The leaves are deeply cut but not curled. Much stronger in flavor than the curled sorts and, on this account, preferred for soups, etc. Pkt. 10 cts., oz. 15 cts., ¼lb. 25 cts., lb. 75 cts.



Long Green Okra

**HAMBURG TURNIP-ROOTED.** Grown for its roots, which resemble short, thick parsnips and are highly flavored; useful in soups and stews. Grown like carrots. The roots can be stored for winter use. Pkt. 10 cts., oz. 15 cts., ¼lb. 25 cts., lb. 75 cts.

## PARSNIP *An ounce of seed will sow 150 feet of row; 8 pounds will sow an acre*

A deep, fine but not necessarily rich soil is best for Parsnips. Spade it deep and pulverize it well, as early as the ground can be worked. Sow the seed in drills 1½ feet apart and half an inch deep, and when the plants are well up thin them out to stand about 6 inches apart. Cultivate frequently. The roots mature in the fall and, being perfectly hardy, may be left in the ground all winter, to be dug as needed. Their flavor is improved by freezing.

**HOLLOW CROWN.** A standard table variety, producing long, smooth roots with white skin and fine-grained flesh. Productive and reliable. Pkt. 10c., oz. 15c., ¼lb. 25c., lb. 75c.

**GUERNSEY.** Thicker at the top and not quite so long as the preceding; consequently, a better variety to grow on shallow soils. Good quality. Pkt. 10c., oz. 15c., ¼lb. 25c., lb. 75c.

**MALTESE HALF-LONG.** An early variety of particularly fine quality. Roots rather short and thick. Pkt. 10 cts., oz. 15 cts., ¼lb. 25 cts., lb. 75 cts.

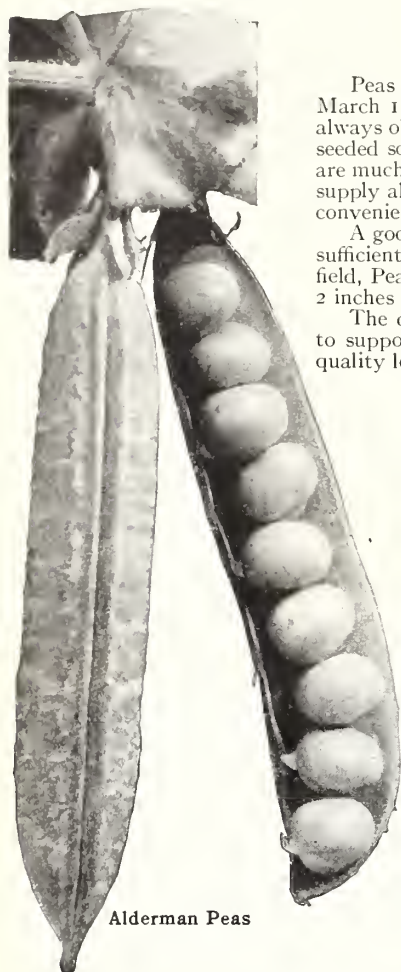
**WHITE LISBON.** The largest and most handsome variety. Resembles Hollow Crown but the roots are smoother and whiter. Fine quality. Pkt. 10c., oz. 15c., ¼lb. 25c., lb. 75c.



Hollow Crown Parsnips

# GARDEN PEAS

**INOCULATE THIS  
SEED WITH  
FARMOGERM**



Alderman Peas

Peas can be sown very early in the spring, the hardy round-seeded varieties even as early as March 1, and, generally speaking, the earlier you start your Peas the better, for the best crops are always obtained before the onset of real hot weather. For the first sowings use the smooth or round-seeded sorts, but after the first of April change to the wrinkled kinds which, although not so hardy, are much superior in quality. Make additional sowings every two weeks up to July 1 for a continuous supply all summer, but arrange to put the May and June plantings on deep, rich soil where you can conveniently water them during dry weather.

A good way to grow Peas in the garden is to plant them in double rows 6 to 8 inches apart, with sufficient space between each pair of double rows to allow for easy cultivating and picking. In the field, Peas are grown in single rows with 3 feet or more between. The seed should be covered about 2 inches deep, or somewhat deeper in warm, dry weather.

The dwarf varieties require no support, but the tall sorts should be provided with bush or wire to support the vines. Generally speaking, the tall varieties are more productive and retain their quality longer, although there are exceptions to this rule.

*A quart of seed will sow 100 feet of single row; 1 to 1½ bushels will sow an acre*

## HARDY ROUND-SEEDED PEAS

**CARTER'S EIGHT WEEKS.** The earliest and one of the hardiest Peas in cultivation, this comparatively new variety is rapidly becoming a favorite for the first spring crop. The vines are vigorous and extremely productive, growing about 16 to 18 inches high and bearing pods of very good size for so early a sort. Peas large and of fine quality when young. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**MARKET SURPRISE.** An unusually large-podded, extra-early sort, growing 2½ to 3 feet tall. It is about the same season as Alaska, being several days later than Eight Weeks, but the pods are larger and Peas of better quality. A reliable variety for both home and market-gardens. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**ALASKA.** A very productive smooth Pea, long in favor with market gardeners and canners. About 2½ feet tall; pods rather small, ripening all at once; Peas small and of medium quality. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3, bus. \$11.

**FIRST AND BEST.** An old reliable. A day or two later than Alaska; similar in height, but pods and Peas are somewhat larger. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3, bus. \$11.

## EARLY WRINKLED PEAS

**PIONEER.** A very productive and reliable dwarf Pea, one of the earliest of the wrinkled kinds. The vines grow about 16 inches tall, bearing very large, curved pods, medium green in color and filled with large Peas of fine quality. ½pt. 15c., pt. 30c., qt. 50c., pk. \$3.25, bus. \$12.

**LAXTONIAN.** The acknowledged leader in quality among early dwarf Peas and one of the best varieties for the home-garden. Of the same general type as Pioneer but a trifle taller and the pods and Peas are darker green. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**WORLD'S RECORD.** The earliest wrinkled Pea, and one of the most popular varieties for both market and home plantings in this section. It closely resembles the old standard Gradus; in fact, might be called an extra-select strain of that variety, but is a few days earlier and the pods are a shade smaller. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**GRADUS.** A grand old standby, second only to World's Record in earliness and a most dependable producer under all conditions and for all purposes. Vines 3 feet high; pods about 4 inches long, broad and slightly curved, containing 7 to 9 Peas of excellent quality. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

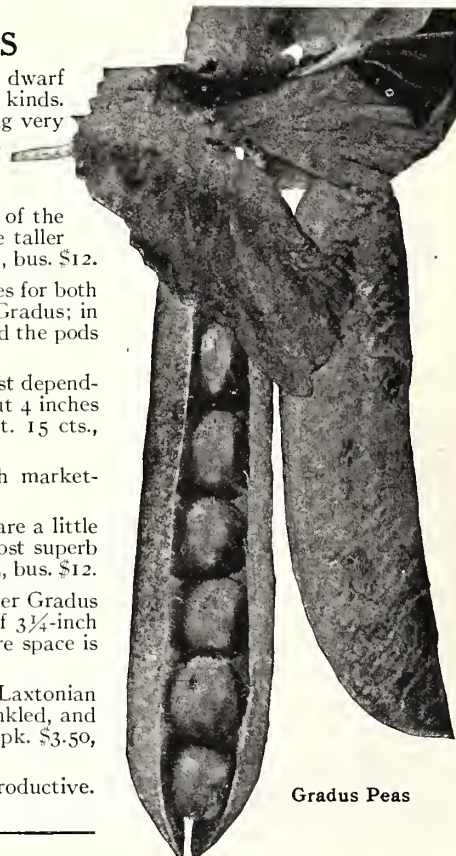
**EXTRA-EARLY TELEPHONE.** A good strain of the Gradus type, popular with market-gardeners. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**THOMAS LAXTON.** As early as Gradus and grows to the same height. The pods are a little shorter and more blunt but they are always crammed full of large, tender Peas of most superb quality. Desirable for the market-garden. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**LITTLE MARVEL.** A very dwarf, large-podded variety which comes into bearing after Gradus and just before Laxtonian. The vines grow about a foot high and bear big crops of ¾-inch pods, containing large Peas of excellent flavor. A good Pea to plant in gardens where space is limited. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**LAXTON'S PROGRESS.** This new, dwarf, early sort comes in much earlier than Laxtonian or any other Pea of its class. The Peas are deep green, of excellent flavor, fully wrinkled, and average 9 to 10 to the pod. Grows 18 inches high. ½pt. 20 cts., pt. 35 cts., qt. 60 cts., pk. \$3.50, bus. \$13.

**AMERICAN WONDER.** Quite similar to Nott's Excelsior. Hardy, reliable, and productive. ½pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.



Gradus Peas

## PEAS, continued

**NOTT'S EXCELSIOR.** Same height and season as Little Marvel but the pods and Peas are smaller. Good quality and very prolific.  $\frac{1}{2}$ pt. 15 cts., pt. 30 cts., qt. 50c., pk. \$3.25, bus. \$12.

## MIDSEASON AND LATE WRINKLED PEAS

**POTLATCH.** Productive main-crop Pea of special value to the home-gardener on account of its dwarf growth and extra-fine quality. Vines luxuriant, 2 feet high; pods deep green, 5 inches long and quite broad; Peas large and tender, often 10 to a pod.  $\frac{1}{2}$ pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**DWARF TELEPHONE.** Also known as "Daisy." A little earlier than Potlatch, growing 2½ feet tall, with 4½-inch pods, containing 7 or 8 Peas of the very best quality.  $\frac{1}{2}$ pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

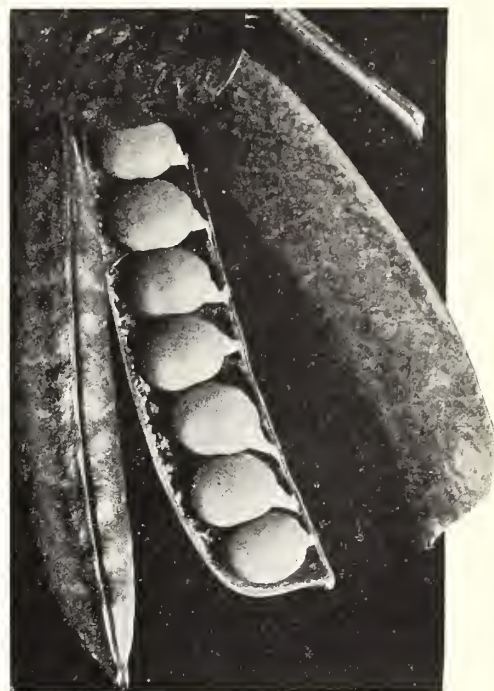
**DUKE OF ALBANY.** Compares favorably with Telephone in maturity and quality. Closely resembles the Improved Telephone except that the pods are darker green.  $\frac{1}{2}$ pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**PRINCE EDWARD.** One of the newest in this class and probably the most productive. Matures with Telephone; vines medium green, pods dark green in color. Highly recommended to market-gardeners and for late use in the home-garden.  $\frac{1}{2}$ pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**IMPROVED TELEPHONE.** The best strain of this well-known standard variety. The vines are vigorous, growing 4 feet high, with broad, heavy leaves and broad pods, 4½ inches long, light green in color, and well filled with 8 to 10 extra-large Peas. Bears several good pickings. Quality fine, the Peas remaining tender and sweet for a long time.  $\frac{1}{2}$ pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**ALDERMAN.** Perhaps the best all-round of the Telephone type. Vines strong and vigorous; leaves and pods rich dark green; productive; quality the finest; matures with Telephone.  $\frac{1}{2}$ pt. 15 cts., pt. 30 cts., qt. 50 cts., pk. \$3.25, bus. \$12.

**MAMMOTH-PODDED SUGAR.** A tall, late, prolific variety which produces big, broad pods, so tender and sweet that the whole pod can be cooked and served like snap beans. If you have not grown sugar-pod Peas, be sure to try them this year.  $\frac{1}{2}$ pt. 25 cts., pt. 40 cts., qt. 75 cts., pk. \$5.25, bus. \$20.



Little Marvel Peas. See page 22

## PEPPER

An ounce of seed will produce  
about 1,500 plants

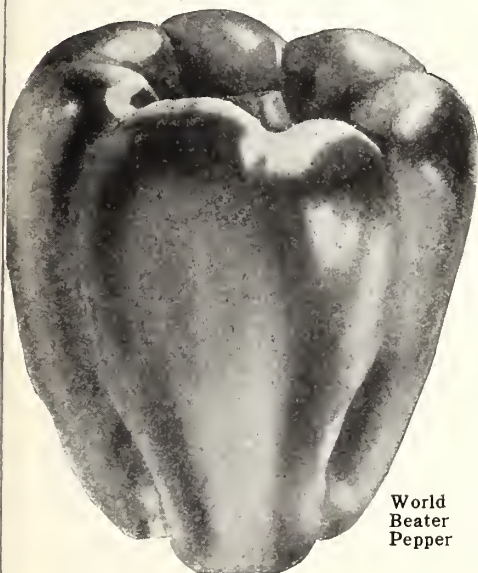
Peppers require a moderately rich and light soil, a long growing season, and plenty of warmth at all stages. Grow them like egg-plants, starting the seed indoors or in the hotbed in March, transplanting to pots or dirt-bands when the second or third leaf has developed, and resetting in the garden about June 1. Space the plants 2 to 2½ feet apart.

**RUBY KING.** An early and productive, true sweet Pepper. The fruits, when ripe, are bright red, averaging 4 inches in length and 3 inches in diameter, tapering to a blunt point. The flesh is quite thick, sweet, and always mild. A fine variety for the home-garden. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.25, lb. \$4.

**WORLD BEATER.** A fine, new selection of the Ruby Giant type. Later but larger and a little more blocky in shape than Ruby King; flesh quite thick and sweet; bright scarlet when ripe. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.25, lb. \$4.

**RUBY GIANT.** Thick-fleshed and, next to Chinese Giant, the largest of the sweet Peppers. Early, reliable, and fairly productive. Deep green, changing to rich red when ripe. Handsome Pepper of fine quality. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.25, lb. \$4.

**SWEET SPANISH.** A large, rich scarlet Pepper of exceptionally mild flavor. One of the best sorts for baking or for mangoes. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.25, lb. \$4.

World  
Beater  
Pepper

**BULL NOSE.** Largely grown by market-gardeners on account of its productiveness. Fruits deep green, becoming vivid scarlet as they mature, medium in size, square and blunt-pointed. Generally considered a sweet Pepper but the flesh is often strong in flavor and sometimes quite hot. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.25, lb. \$4.

**PIMIENTO.** A select strain of the famous Spanish Pepper, the thickest-fleshed and choicest quality variety in cultivation. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.25, lb. \$4.

**HARRIS' EARLY GIANT.** Large, early variety about 4 inches long by 3 inches through. It is deep green, turning to red, and of sweet, pleasant flavor. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.50, lb. \$5.

**CALIFORNIA WONDER.** (New.) Has thicker, firmer, heavier flesh than any other Pepper, and a deliciously sweet spicy flavor with no bite to it. Fruits are bright green, changing to brilliant light crimson, and are ideal for stuffing because of their blocky shape. They frequently measure 4½ inches across. Pkt. 10 cts., oz. 75 cts.,  $\frac{1}{4}$ lb. \$2, lb. \$7.

**NEAPOLITAN.** A solid, mild Pepper 4 inches long by 2 inches in diameter, and tapering irregularly from the shoulder. It is green when young and glossy red when ripe. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.50, lb. \$5.

**CHINESE GIANT.** The largest of all Peppers, the fruits often measuring 5 inches in length and diameter. Late but productive; flesh thick and very mild and sweet; deep red when ripe. Pkt. 10 cts., oz. 75 cts.,  $\frac{1}{4}$ lb. \$2, lb. \$7.

**LONG RED CAYENNE.** Pods about 6 inches long, slender and pointed, bright scarlet; flesh very hot in taste and pungent in odor. Pkt. 10 cts., oz. 50c.,  $\frac{1}{4}$ lb. \$1.50, lb. \$5.

**SMALL CAYENNE.** Bushy plants, loaded with little, slender pods, about 1½ inches long. Fiery hot. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.25, lb. \$4.

**LARGE RED CHERRY.** Fruits erect, round or cherry-shape and very hot. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.50, lb. \$5.



Mammoth Golden Cushaw Pumpkin

## PUMPKIN

The seed should be sown as soon as the ground gets warm, usually during the latter part of May in this section. Pumpkins are sometimes grown in corn, but for table use it is customary to plant them in hills 6 to 8 feet apart, dropping from four to eight seeds in each hill. It is a good plan to pinch back the vines after they get 4 to 5 feet long. If you want extra-large specimen fruits, dig plenty of manure into the hill before planting and permit only one or two fruits to mature on each plant.

*One ounce of seed will plant about 25 hills; 4 to 5 pounds will plant an acre*

**MAMMOTH GOLDEN CUSHAW.** A large crookneck variety with golden orange skin and deep, rich yellow flesh of the very finest quality. A productive sort and largely grown for table use. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.

**LIVINGSTON CUSHAW.** An old standby and a great favorite for pies. Crookneck shape; skin mottled green and white; flesh yellow, fine-grained and sweet. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.

**SMALL SUGAR.** Small but productive and of splendid quality. Fruits round with bright orange skin and thick, sweet flesh. Undoubtedly the best table Pumpkins for the small garden. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.

**MAMMOTH TOURS.** Grows to an enormous size, fruits often weighing 100 pounds or more. Skin mottled green; flesh yellow, rather coarse. Used principally for stock feeding. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.



King of Mammoths Pumpkin

**LARGE CHEESE.** Big, flat, handsome Pumpkins with light buff skin and yellow flesh. Prolific; largely grown for market and canning. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.

**KING OF MAMMOTHS.** The largest of all; when grown for exhibition fruits sometimes weigh 200 pounds. Round, flattened at the ends, with golden orange skin and deep yellow flesh of fair quality. A good keeper. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.

**CONNECTICUT FIELD.** The common big field Pumpkin. Very productive; fruits oblong in shape, with bright yellow skin and rather coarse flesh. Usually grown for stock. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. 85 cts., 5 lbs. \$3.50.

**KENTUCKY FIELD.** Fruits a little smaller and more round in shape than the preceding. Flesh of better quality and suitable for table as well as stock. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 35 cts., lb. 85 cts., 5 lbs. \$3.50.



Mammoth Sandwich Island Salsify

## RHUBARB

Rhubarb gives best crops on deep, light soil which has been liberally enriched with manure. It is cheapest to start with seed but only a percentage of the plants grown from seed will be worth saving. Sow early in the spring, in drills an inch deep and a foot apart, and thin the plants to stand about 5 inches apart. The following spring, reset the best plants 3 to 4 feet apart each way. If you start with roots, plant them with the crown about 1 inch below the surface. Cultivate Rhubarb frequently and keep the weeds out. Give water, if needed, while the plants are producing and dress with manure every year after the cutting season is over. The first pulling may be made the second season after planting and the plant will continue to bear for many years.

**VICTORIA.** This is the best all-round variety. Productive and comes fairly true from seed. Seed, pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$  lb. 60 cts., lb. \$2. Roots, 15 cts. each, \$1.50 per doz.; postpaid, \$1.75 per doz.

## SALSIFY

Often called "Vegetable Oyster" or "Oyster Plant" on account of its flavor. Salsify is easy to grow on any good garden soil. Spade to a depth of a foot or more and make the soil as fine as possible. Sow the seed early, as the plants require a long season to attain full size; cover about an inch deep, in rows 12 to 15 inches apart, and thin the plants to 3 inches apart in the rows. Roots may be left in the ground all winter and dug as needed.

*One ounce of seed will sow about 50 feet of drill; 10 pounds will sow an acre*

**MAMMOTH SANDWICH ISLAND.** The best variety. Roots often 10 to 12 inches long, tender, and of delicious flavor. Pkt. 10 cts., oz. 25 cts.,  $\frac{1}{4}$  lb. 75 cts., lb. \$2.50.

# RADISHES

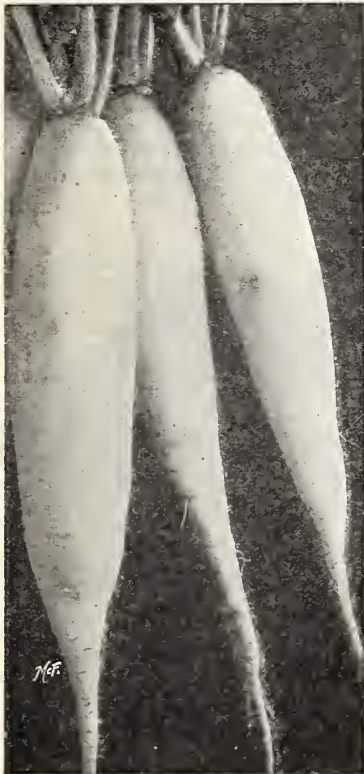
Everybody can and everybody wants to grow Radishes. Most any soil will do; if it is light and mellow so much the better. An extra-early crop can be grown in the hotbed from seed sown in February or early March. Start outdoors as soon as the ground can be put in shape and sow seed of any of the quick-growing round or olive-shaped sorts, not too thick, in drills a half inch deep and 1 to 1½ feet apart. Thin out the seedlings promptly to stand about an inch apart in the rows. Keep them growing fast by hoeing or cultivating every two or three days, otherwise they become pithy and bitter. After putting in seed for the first crop, make additional sowings every ten days to two weeks, but for the later crops, which will ripen in warm weather, use the long varieties. For late summer and fall use, sow the Summer and Winter Radishes which are larger and slower growing but will, unlike the early round Radishes, thrive in hot weather. The Summer Radishes may be sown any time up to August 1. The big Winter Radishes should be sown late in June to attain full size before frost.

*One ounce of seed will sow about 100 feet of drill; 8 to 10 pounds will sow an acre*

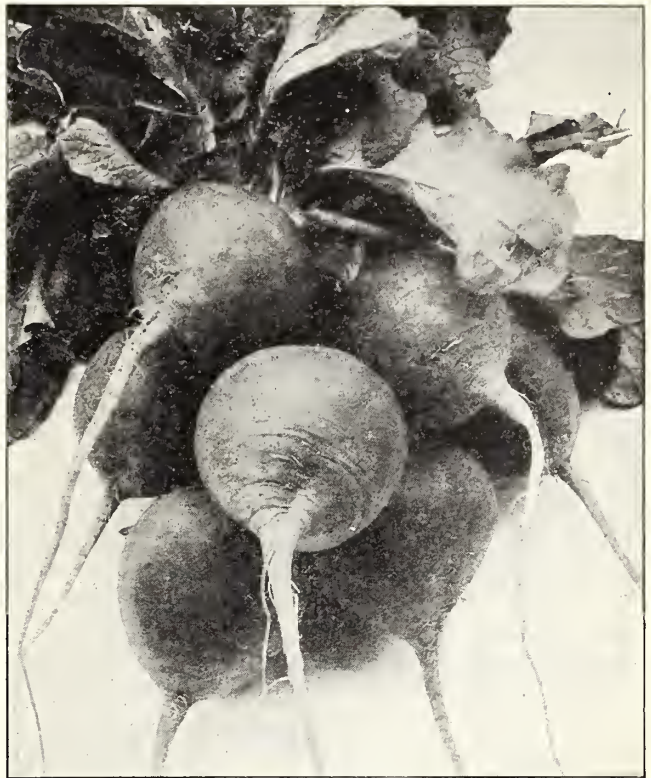
**EARLY WHITE-TIP FORCING.** A very attractive little Radish for forcing in frames or for early spring planting. Round, bright scarlet with clear white tip; small leaves. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**EARLY SCARLET TURNIP.** Roots of medium size, round, smooth, bright red; tops small. Grows quickly and is one of the old standbys for forcing. Pkt. 10 cts., oz. 15 cts., ¼lb. 40c., lb. \$1.

**NON PLUS ULTRA.** The earliest forcing Radish in general use, ready for the table in 20 days from planting. Roots small, uniformly globe-shaped, and smooth, with brilliant scarlet skin and crisp white flesh. Fine for early sowing outdoors as well as for forcing. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.



Icicle Radishes



Crimson Giant Radishes

**EARLY SCARLET GLOBE.** One of the most popular Radishes for early use. Matures medium-sized, elongated, globe-shaped, clear rosy scarlet roots in about four weeks from sowing. Quality fine; a reliable variety for forcing and always in demand. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**WHITE BOX.** A pure white, medium-sized, early, round Radish, especially desirable for growing under glass. Tops small. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**FRENCH BREAKFAST.** An oblong or olive-shaped Radish of very fine quality. Early; bright carmine with clear white tip. Good for forcing and fine for the home-garden. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**GIANT BUTTER.** A round, red Radish, in shape and appearance much like Non Plus Ultra but considerably larger; it grows quickly and is valuable for forcing. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**BURPEE'S SCARLET BUTTON.** A select strain of the Non Plus Ultra class. Extra-early; roots small with bright red skin and crisp, white flesh. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**CRIMSON GIANT.** The largest of the early, round Radishes, maturing in about four weeks from sowing. Handsome, deep red, globe-shaped roots. Good for forcing and fine for the home-garden. Remains crisp and mild longer than other early sorts. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**GOLDEN YELLOW OVAL.** Popular for late plantings as it grows well in hot weather. Olive-shaped, about 1½ inches long, with russet-yellow skin and pure white flesh of fine flavor. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**ICICLE.** If you grow only one kind of Radish in your garden, you will be safe in choosing Icicle. It grows quickly, making handsome, long, smooth roots with pure white skin and crisp, mild flesh. Being more resistant to heat than other early Radishes, it is reliable for either spring or summer use and retains its crispness and flavor for a long time after it becomes ready for use. Suitable also for forcing. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**LONG SCARLET SHORT TOP.** An extra-early long Radish, ready for use 25 days after sowing. The roots grow 5 to 6 inches long, with a third of their length above ground. Bright scarlet. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**COPENHAGEN MARKET.** A short-leaved, round, red sort, with the lower part white. Excellent both for forcing and outdoors. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.

**CINCINNATI MARKET.** In shape much like Long Scarlet Short Top but a little longer and with a very small top. Skin rosy scarlet; flesh clear white, very brittle and mild. Popular for forcing. Pkt. 10 cts., oz. 15 cts., ¼lb. 40 cts., lb. \$1.



Chartier Improved Radishes

flesh pure white. Of fine quality and a good keeper. **CHINESE ROSE.** Roots 4 to 5 inches long, cylindrical, or larger near the bottom; skin smooth, bright rose in color; flesh white, crisp and tender. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

## SUMMER RADISHES

**WHITE LADY FINGER.** Resembles Icicle but grows more slowly and is particularly desirable for late sowings as it retains its fine, crisp quality for a long time even in the hottest weather. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**WHITE VIENNA.** Almost identical with Lady Finger. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**CHARTIER, IMPROVED.** A splendid variety to plant for second-early, being intermediate in season between the early and the Summer Radishes. Roots 7 to 8 inches long, bright rose with white tip. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**WHITE STRASBURG.** A long, oval Summer Radish of handsome appearance; a leading variety for market. Roots about 5 inches; skin and flesh pure white; remains firm and brittle longer than most sorts. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**WHITE STUTTGART.** A large, late, pure white kind, with almost round or top-shaped roots 4 inches in diameter. Of good quality and a good keeper. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.

## WINTER RADISHES

**LONG BLACK SPANISH.** One of the hardiest and best keeping sorts. Roots 7 to 9 inches long and 2 to 3 inches in diameter at the top, tapering to an abrupt point. Skin black; flesh clear white and of fine quality. Pkt. 10c., oz. 15c.,  $\frac{1}{4}$  lb. 40c., lb. \$1.

**LONG WHITE SPANISH.** Exactly like the preceding except in color of skin. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**ROUND BLACK SPANISH.** Similar to the Long Black Spanish. Roots nearly round, 3 to 4 inches in diameter. The round shape is preferred in some markets. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

**CELESTIAL, or White Chinese.** Grows more quickly than the Spanish types; roots handsome, cylindrical in shape, often 8 inches long and 3 inches in diameter; skin and flesh pure white. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.

## SPINACH

*One ounce of seed will sow about 100 feet of drill; 14 to 15 pounds will sow an acre*

From the standpoint of health, there are few vegetables more valuable than Spinach. Room should be made for it in every garden, small or large. It is easy to grow but should have a moderately rich, well-dug soil. Start the first crop in drills an inch deep and 15 inches apart as soon as the ground can be made ready in the spring, and follow this with succession sowings every ten days up to the middle of May. Make additional sowings in August and September for fall use. Thin the plants to stand about 5 inches apart. To provide Spinach during hot weather, when ordinary varieties do not thrive, make a sowing of the heat-resistant New Zealand Spinach about May 1. For extra-early Spinach in the spring, sow one of the hardy sorts late in September and protect the plants over winter with straw or leaves.

**BLOOMSDALE SAVOY-LEAVED.** Very hardy and, consequently, most desirable for autumn and early spring use. The plants are upright and vigorous, with thick crumpled leaves. Oz. 10 cts.,  $\frac{1}{4}$  lb. 20 cts., lb. 50 cts., 5 lbs. \$1.75, 10 lbs. \$3, 25 lbs. \$6.25.

**TRIUMPH.** A large-growing variety which stands for a long time before going to seed. Leaves broad, somewhat crumpled, tender, and of fine flavor. For spring and early summer. Oz. 10 cts.,  $\frac{1}{4}$  lb. 20 cts., lb. 50 cts., 5 lbs. \$1.75, 10 lbs. \$3, 25 lbs. \$6.25.

**LONG SEASON.** Somewhat like Triumph, remaining in marketable condition a long time. Oz. 10 cts.,  $\frac{1}{4}$  lb. 20 cts., lb. 50 cts., 5 lbs. \$1.75, 10 lbs. \$3, 25 lbs. \$6.25.

**VICTORIA.** Another variety of the Triumph type, which stands hot weather better than other sorts and is slow to go to seed. Leaves very large and thick, deep green in color, and of superior quality. Oz. 10c.,  $\frac{1}{4}$  lb. 20 cts., lb. 50 cts., 5 lbs. \$1.75, 10 lbs. \$3, 25 lbs. \$6.25.

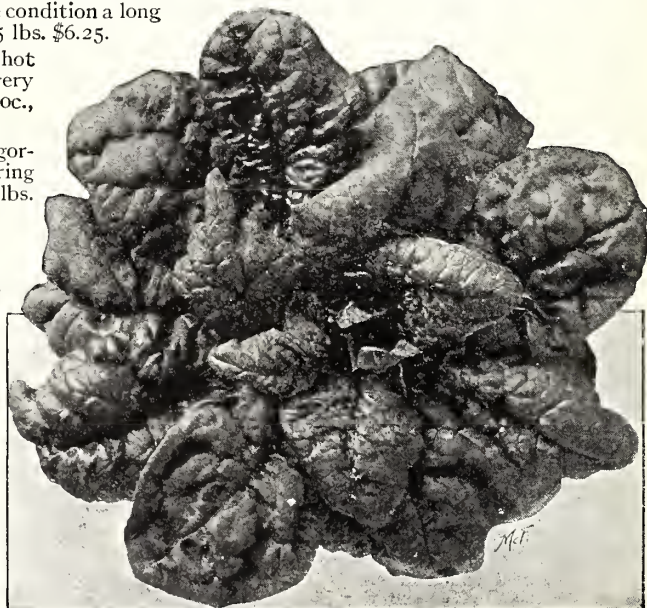
**IMPROVED LARGE ROUND THICK-LEAVED.** A hardy, vigorous sort, particularly valuable to market-gardeners for early spring sowing. Oz. 10 cts.,  $\frac{1}{4}$  lb. 20 cts., lb. 50 cts., 5 lbs. \$1.75, 10 lbs. \$3, 25 lbs. \$6.25.

**KING OF DENMARK.** A very fine new Spinach which stands a week or two longer before shooting to seed than any other sort. The plants are large with thick, crumpled, dark green leaves. Oz. 10c.,  $\frac{1}{4}$  lb. 25c., lb. 60c., 5 lbs. \$2.50, 10 lbs. \$4.50, 25 lbs. \$10.

**JULIANA.** A good second-early variety that grows close to the ground and has dark green, crumpled leaves that keep fresh-looking and retain their crispness a long time after being cut. Stands well. Oz. 10 cts.,  $\frac{1}{4}$  lb. 25 cts., lb. 60 cts., 5 lbs. \$2.50, 10 lbs. \$4.50, 25 lbs. \$10.

**BLOOMSDALE (LONG-STANDING).** A very early, blight-resistant, hardy sort that is much planted for market and canning. Leaves curled and wrinkled. Oz. 10 cts.,  $\frac{1}{4}$  lb. 25 cts., lb. 60 cts., 5 lbs. \$2.50, 10 lbs. \$4.50, 25 lbs. \$10.

**NEW ZEALAND.** A distinct type of Spinach which makes large, bushy plants, often 3 feet in diameter. Only the young leaves and tips of the branches are used and the more they are picked, the faster the plant seems to grow. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. 75 cts., 5 lbs. \$3.50, 10 lbs. \$6.50.



Triumph Spinach

# SQUASH

One ounce of Squash seed will plant 15 to 20 hills; 3 to 5 pounds will plant an acre, according to variety

In general culture the Squashes are much like the melons, but they do not require such a long growing season and are more dependable producers. Best results are secured on light soils which have been heavily manured. Sow the seed in hills, about 4 feet apart each way for the summer varieties and 10 to 12 feet for the late or winter sorts. Do not sow, however, until the soil is warm and dry—the end of May is about right in this section. Use plenty of seed in each hill, twelve to fifteen anyway, to provide against the inevitable losses from insects; after the plants get a good start pull out all but four or five. The Squash vine borer may cause some trouble during the season but can be discouraged by sprinkling tobacco dust close around the plants. Covering the vines with a little soil at several joints so that they take root there will also help to limit its destructiveness. The black Squash bug can best be kept in check by hand picking; spraying with arsenate of lead is the proper remedy for the striped beetle

**MAMMOTH WHITE BUSH.** One of the earliest and most popular of the Summer Squashes. Compact in growth and prolific, with ivory-white fruits, round with scalloped edges. For both market- and home-gardens. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**YELLOW SUMMER CROOKNECK.** An old favorite. Long, curved fruits with



Hubbard Squash

thin, golden yellow, warted skin; sweet, tender flesh. Pkt. 10c., oz. 15c.,  $\frac{1}{4}$ lb. 40c., lb. \$1.25.

**COCOZELLE (Italian Vegetable Marrow).** One of the most useful Summer Squashes for home planting. It is bushy in growth, requiring little space, and produces quantities of oblong fruits, averaging a foot long, with green skin, mottled and striped with yellow and darker green. Quality extra-fine. Pkt. 10c., oz. 20c.,  $\frac{1}{4}$ lb. 50c., lb. \$1.50.

**FORDHOOK.** An excellent variety, suitable for both summer and winter use. The fruits are oblong, 8 to 10 inches long, with thin, light yellow skin and thick, straw-colored flesh. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**BOSTON MARROW.** A productive late variety, generally considered the best for canning and for pies. It is shaped like the well-known Hubbard, with orange skin and thick flesh. A good keeper. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**ORANGE MARROW.** Earlier, more prolific, and a little smaller, but otherwise similar to Boston Marrow. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**ESSEX HYBRID.** A large, turban-shaped winter Squash of excellent quality. Skin dull orange-red, quite hard; flesh dark orange, thick and sweet; one of the best winter keepers. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**IMPROVED HUBBARD.** A selection from the old Hubbard, with more vigorous vine and slightly larger fruits. Skin smooth, dark green; flesh deep yellow and of superb quality. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**WARTED HUBBARD.** Similar in size and shape to the Improved Hubbard, but the skin is heavily warted and very dark green, almost black, in color. The best keeper of the Hubbard type. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

**GOLDEN HUBBARD.** True Hubbard shape but earlier, a trifle smaller, and the skin is a rich orange-red in color. Flesh deep orange, dry and sweet; an excellent keeper. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.25.

## HERBS

Grandmother's garden always had a little patch of herbs and, doubtless, much of the savoriness of grandmother's cooking as well as the effectiveness of her home remedies was derived from her store of "yarbs." Most of the commoner herbs are perennials, although they last but a few seasons in ordinary situations. Any odd corner will do, providing it is sunny and the soil not too hard or poor. Sow seed in early spring, thinning out as needed. The seeds of many herbs are slow and irregular in germinating.

**ANISE.** Used principally for flavoring and for garnishing. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 60 cts., lb. \$2.

**BALM.** Used for making a medicinal tea. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$ lb. \$1, lb. \$3.

**SWEET BASIL.** A highly aromatic herb whose leaves and tops are used for seasonings and, in a limited way in salads. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**BORAGE.** An annual plant that is used freely by bee-keepers. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**CARAWAY.** The seeds of this plant are used for culinary purposes, in confectionery and also in medicines. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.

**CHIVES.** Used as a substitute for onions in soups and salads. Pkt. 25 cts., oz. 75 cts.,  $\frac{1}{4}$ lb. \$2.25, lb. \$8.

**CORIANDER.** An annual whose seeds are strongly aromatic. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 40 cts., lb. \$1.

**CURLED CHERVIL.** Leaves of Chervil very much resemble those of parsley and are used in a similar way. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 60 cts., lb. \$2.

**DILL.** An annual plant, seeds of which are used as a seasoning and also in the preparation of Dill pickles. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 35 cts., lb. \$1.

**HOREHOUND.** Annual; chiefly used for medicinal purposes, as it has strong tonic properties. Pkt. 10c., oz. 30c.,  $\frac{1}{4}$ lb. \$1, lb. \$3.

**LAVENDER.** Dried flowers impart a pleasing odor to the contents of linen-chests. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$ lb. \$1, lb. \$3.

**SWEET MARJORAM.** Pleasingly fragrant and of particular value as a seasoning. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$ lb. \$1, lb. \$3.

**RUE.** A medicinal plant of extremely pungent taste. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$ lb. \$1, lb. \$3.

**SAFFRON.** Cultivated for medicinal purposes. Pkt. 10 cts., oz. 25 cts.,  $\frac{1}{4}$ lb. 75 cts., lb. \$2.50.

**SAGE.** An old familiar herb with a pungent odor. Pkt. 10 cts., oz. 30 cts.,  $\frac{1}{4}$ lb. \$1, lb. \$3.

**SUMMER SAVORY.** Dried foliage used for flavoring during the winter months. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**SWEET FENNEL.** The leaves are finely cut and are used for garnishing. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**TANSY.** A strongly aromatic plant, with medicinal qualities. Pkt. 10 cts., oz. 50 cts.,  $\frac{1}{4}$ lb. \$1.75, lb. \$6.

**THYME.** The leaves and young branches of which are used for seasoning. Pkt. 10 cts., oz. 40 cts.,  $\frac{1}{4}$ lb. \$1.50, lb. \$5.

**WORMWOOD.** Has medicinal qualities. Pkt. 10 cts., oz. 35 cts.,  $\frac{1}{4}$ lb. \$1, lb. \$3.

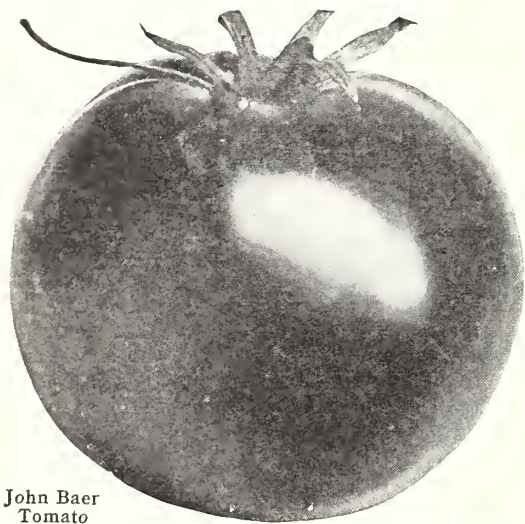


Mammoth White Bush Squash

# TOMATOES

An ounce of seed will produce about 2,000 plants;  
4 ounces should give sufficient plants for an acre

Thriving in any soil, and producing the most bounteous returns in small space, Tomatoes are an ideal crop for the home-garden. They should have plenty of sunlight and moisture but are not at all particular as to soil. The seed should be sown indoors in late February or March, in shallow boxes or pots placed in a warm, sunny window. As soon as the little plants are strong enough, thin or transplant them to stand 3 to 4 inches apart; then when they are about 3 inches high transfer them to small paper pots or dirt-bands. To secure extra-strong, stocky plants, transfer them again, when 6 to 8 inches tall, to larger pots. As the season advances, "harden" them by exposing them to the air on warm days, but protect them carefully from chill at all times. When all danger from frost is past—generally after the middle of May—set them out in the garden, spacing them about 4 feet apart each way. Water freely at the time of transplanting and push the young plants along with an occasional light application of nitrate of soda or liquid manure. In large field plantings it would hardly be practicable to stake each plant, but in the home-garden it is certainly well worth while, for not only do staked plants take up less room but they produce more and better fruit, and ripen earlier. Set stout stakes 5 to 6 feet high firmly in the ground close to the base of each plant, trim off all but two or three of the strongest shoots and tie these to the stake with strips of cloth, soft twine or raffia. As the plants grow, trim out side shoots and suckers, and when the vines reach the top of the stake, pinch off the tops. To guard against blight spray the plants with Bordeaux Mixture or Sulfoicide two or three times during the season; arsenate of lead will kill the tomato worms. The average home-gardener will find it advisable to grow at least three varieties of Tomatoes to provide a succession of fruit during the season.



John Baer  
Tomato

**JOHN BAER.** Undoubtedly one of the most valuable of all early varieties of Tomato—especially popular with market-gardeners on account of its handsome appearance and productivity, while its earliness and high quality commend it for the first crop in the home-garden. John Baer matures its first setting of fruits within a few days after the Earliana types, produces larger crops and bears for a longer season. The fruits are of good size, perfectly smooth, and nearly globe-shaped, with brilliant scarlet skin and firm flesh, entirely free from core and with few seeds. The flavor is mild and deliciously sweet. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**NORTHERN ADIRONDACK EARLIANA.** Developed from the original Earliana by scientific line breeding under rigorous climatic conditions, this splendid strain has become the most reliable extra-early in many sections. It is hardy, as early as any strain of Earliana in cultivation, and ripens up uniformly. The fruits are a little more globe-shaped than Earliana, always perfectly smooth and bright red in color. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$1.75, lb. \$6.

**EARLIANA, SPARK'S.** This is the original Earliana Tomato, for years the standby for first-early market. The plants are compact, with light foliage; the fruits are of good size, bright red, and quite solid. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$1.75, lb. \$6.

**AVON EARLY.** A new variety which ripens with Earliana. It is an unusually reliable producer of large, smooth, deep red fruits which are nearly round, smooth, solid, free from cracks, and excellent for shipping. The flavor is less acid than Earliana. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**JUNE PINK.** The best extra-early pink or purplish colored Tomato, similar to Earliana in earliness and in most other respects except color. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 25 cts., oz. 40 cts.,  $\frac{1}{4}$  lb. \$1.25, lb. \$4.

**BONNY BEST.** The most popular Tomato grown to follow Earliana or John Baer. It is remarkably productive even on light soils, producing large, round, smooth fruits in handsome clusters. Uniform in size and shape, solid, free from cracks, bright scarlet in color. A fine variety for the home-garden. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**CHALK'S EARLY JEWEL.** Ripening at about the same time as Bonny Best, this variety is an enormous producer, particularly on heavy soils. The fruits are a little larger than Bonny Best, slightly flattened in shape and bright scarlet in color, always solid, with hard, smooth skin. Excellent for market and shipping. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**EARLY DETROIT.** A pink-fruited Tomato which may be compared with Chalk's Early Jewel among the scarlet sorts. Fruits nearly round, firm, and of fine quality. One of the best for shipping. Pkt. 10c.,  $\frac{1}{2}$  oz. 30c., oz. 50c.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**GULF STATE MARKET.** A new, early, purple-fruited variety desirable for market-gardeners. Nearly as early as the Early Detroit but a little larger and deeper in shape, with almost no depression at the stem end. Smooth and free from cracks; productive; a good shipper. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**BEAUTY.** A popular, main-crop, purple-colored variety which bears for a long season. Fruits large, slightly flattened, solid and of fine quality. Can be shipped long distances without injury. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.



Bonny Best  
Tomato



Livingston's Globe Tomato

## TOMATOES, continued

**LIVINGSTON'S GLOBE.** One of the most valuable Tomatoes in cultivation, coming right after Chalk's Jewel and continues to bear until frost, producing heavy crops of good-sized, uniform, distinctly globe-shaped fruits with smooth, glossy, purplish rose skin. Mild in flavor, meaty, and with very few seeds. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$1.75, lb. \$6.

**MARGLOBE.** Introduced by the U. S. Department of Agriculture as a cross between Marvel and Globe, and seems to have retained the best qualities of both. It is claimed to be wilt-resistant and less susceptible to the "nail-head rust" which is prevalent in some sections. The fruits are of medium size, smooth, solid, and deep from stem to blossom end, with an irregular cell structure. They are borne in clusters of five to seven. Marglobe has had a very favorable reception in the past season. The vine makes medium to heavy growth. Pkt. 15 cts.,  $\frac{1}{2}$  oz. 40 cts., oz. 75 cts.,  $\frac{1}{4}$  lb. \$2.25, lb. \$8.

**TRUCKER'S FAVORITE.** A dependable, late, main-crop, purple sort, bearing large, flattened fruits which are smooth and solid and of fine quality. The vines are unusually vigorous and not subject to blights. One of the most productive. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$2, lb. \$7.

**BEEFSTEAK.** Late; purplish pink; vines strong and vigorous; very little seed; large, solid fruit. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$1.75, lb. \$6.

**MATCHLESS.** A favorite, main-crop, bright red Tomato. The plants are strong-growing, bearing big crops of large, solid fruits. Quality excellent. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$1.75, lb. \$6.

**STONE.** An unusually productive, smooth, bright red Tomato, probably grown more extensively than any other variety in cultivation. It is a favorite for canning and a most dependable sort for main crop in both market and home-gardens. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$1.75, lb. \$6.

**GREATER BALTIMORE.** A selection from Stone with all the good qualities of that fine old standby, but comes into bearing a little earlier. It is particularly desirable for canning. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**RED ROCK.** Intermediate in season between Chalk's Jewel and Stone and resembles the latter in size and productivity. Fruits extra smooth, round, and bright red in color. Splendid for truckers and canners. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$2, lb. \$7.

**DWARF STONE.** Bushy, compact plants, bearing large, solid bright red fruits of the finest quality. Require little space and no support. Medium early. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**DWARF CHAMPION.** Very dwarf and compact in growth. It comes into bearing quite early; the fruits are of medium size, round and smooth with purplish pink skin and firm flesh of fine, mild flavor. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**BUCKEYE STATE.** A dark purple Tomato of very large size; late but a heavy cropper. Fruits nearly globe-shaped, always smooth and solid, seldom cracking even when fully ripened. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$2, lb. \$7.

**PONDEROSA.** One of the best varieties for home-gardens and probably the largest Tomato in cultivation, also the finest in table quality. The plants are vigorous, medium in season, and bear clusters of enormous fruits, which weigh as high as two pounds apiece. Somewhat irregular in shape but extremely solid and with very few seeds. Purplish pink. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$1.75, lb. \$6.

**YELLOW PONDEROSA.** The yellow-fruited varieties of Tomatoes are preferred for table use by many planters on account of their very mild and sweet flavor. Yellow Ponderosa is similar to the purple Ponderosa except in color. Skin clear golden yellow; flesh pale yellow, solid and meaty. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$1.75, lb. \$6.

**GOLDEN QUEEN.** A productive sort, bearing good-sized, round, smooth fruits, bright yellow in color, solid and of splendid quality. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**YELLOW PLUM.** The fruits resemble a plum in size and shape but are bright yellow in color. Enormously prolific; in great demand for preserving. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 35 cts., oz. 60 cts.,  $\frac{1}{4}$  lb. \$2, lb. \$7.



Stone Tomato

## VEGETABLE PLANTS

During the planting season we are prepared to furnish the following plants:

Tomato, Cabbage, Cauliflower, Beet, Pepper, Kohlrabi, Kale, Brussels Sprouts, Celery, Sweet Potato, and Eggplant. Ask for prices when planting season opens, specifying number wanted.



Purple-Top Strap-Leaf Turnip

**EXTRA-EARLY WHITE MILAN.** The quickest growing of the Turnips, largely used for spring sowings. The roots are small and flat with pure white skin and flesh; fine-grained, mild and sweet. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 40 cts., lb. \$1.25.

**YELLOW GLOBE.** Round, smooth roots of medium size, with light yellow skin and flesh. A good main-crop Turnip for both table and stock feeding. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 30 cts., lb. 75 cts.

**COW HORN.** Roots shaped rather like a carrot, often over a foot long and 3 inches in diameter, with a considerable part of their length above ground. Skin and flesh white; quality excellent. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 30 cts., lb. 75 cts., 5 lbs. \$3.25.

## RUTABAGA, or SWEDE TURNIP

Rutabagas are grown much like garden Turnips but they require a longer season and attain a larger size. Sow during June or early July in rows 15 to 18 inches apart and thin out to 8 to 10 inches. Where the summers are temperate an early crop can be grown from spring sowings. Although largely grown for feeding to stock, Rutabagas are considered by many to be superior to Turnips in table quality and they are particularly good winter keepers. Dig the roots before the ground freezes and store in a cold cellar or in pits outdoors.



Improved Purple-Top Rutabaga

**SWEET GERMAN.** A large, globe-shaped variety with white skin and flesh. Fine-grained, solid and sweet, lacking the strong taste which many Turnips develop. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 30 cts., lb. 75 cts.

**IMPROVED PURPLE-TOP.** Hardy and productive with large, globular roots, very uniform in shape and size. Skin smooth, light yellow with purple top; flesh yellow, firm, and of fine quality. Can be stored in good condition all winter and well into the following summer. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 30 cts., lb. 75 cts.

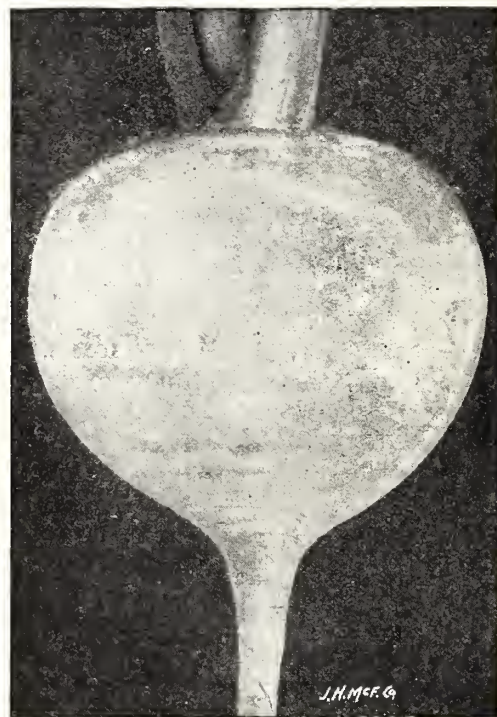
## TURNIPS

Any ordinary garden soil will produce good crops of Turnips. Freshly manured land should not be used, but deep digging and thorough preparation are essential to produce smooth, well-flavored roots. As Turnips develop best in cold weather, the main crop is usually sown in July or August, to mature during the fall, but early-season crops can be obtained by sowing the quick-maturing varieties as soon as the ground can be prepared in the spring. Sow in drills 12 to 15 inches apart and cover firmly with about  $\frac{1}{2}$  inch of soil. Scatter the seed thinly so as to reduce the amount of thinning required when the plants are 2 to 3 inches high. The early sorts should stand 3 to 4 inches apart in the rows and the large main-crop Turnips about 6 inches. The roots may be stored like Beets for winter use, if dug before hard frost.

*An ounce of seed will sow about 100 feet of drill; a pound will sow an acre*

**PURPLE-TOP STRAP-LEAF.** A quick-growing variety desirable for both early and late planting. The roots are flat and quite large; skin white except for a ring of purple around the top; flesh white, fine-grained and of excellent table quality. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 30 cts., lb. 75 cts.

**PURPLE-TOP WHITE GLOBE.** The standard main-crop Turnip for market and often grown for feeding to stock. The roots are large, nearly round, white with upper third purple. The flesh is firm and of good quality. Productive and a splendid keeper. Pkt. 10 cts., oz. 15 cts.,  $\frac{1}{4}$  lb. 30 cts., lb. 75 cts.



Purple-Top White Globe Turnip

## TOBACCO

For best results, Tobacco requires a rich, mellow soil and careful cultivation. Sow the seed in frames or a fine seed bed early in April and reset the plants in the open ground late in May or early in June, spacing them 2 feet apart in rows 4 feet apart. Cultivate frequently.

**CONNECTICUT SEED-LEAF.** One of the hardiest and most popular sorts. Pkt. 10 cts., oz. 40 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

**HAVANA.** True type; productive and of finest quality. Pkt. 10 cts., oz. 40 cts.,  $\frac{1}{4}$  lb. \$1.50, lb. \$5.

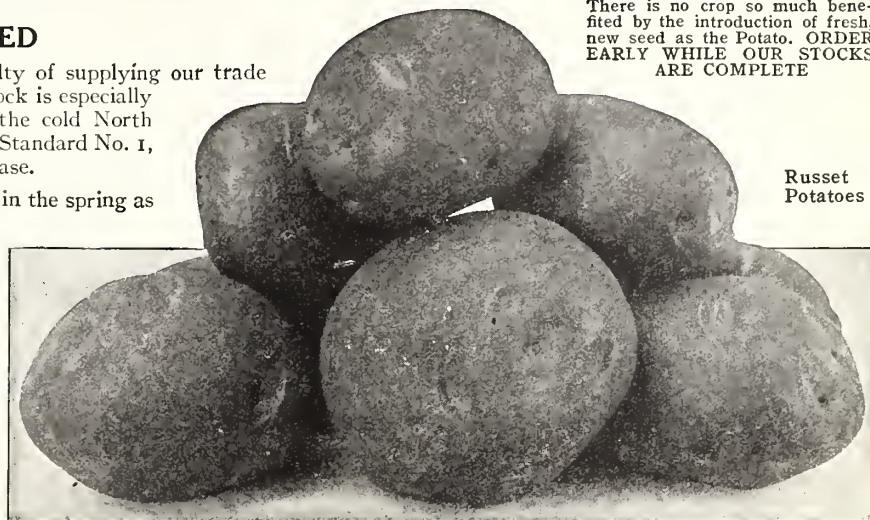
# NORTHERN-GROWN SEED POTATOES

## CERTIFIED SEED

For many years we have made a specialty of supplying our trade with northern-grown Seed Potatoes. Our stock is especially grown for seed, by experienced growers in the cold North and Northwest, and is Certified Stock, U. S. Standard No. 1, high quality, true to type and free from disease.

We begin shipping Seed Potatoes as early in the spring as weather conditions will permit, usually the latter part of March. However, we urge our customers to place their orders early, while our stock of all varieties is complete, as it frequently happens that we are unable to supply certain varieties late in the season. Owing to the perishable nature of Seed Potatoes the market is subject to radical changes, and it is impossible for us to quote prices at the time our Catalogue goes to press. If Price-list is not enclosed with Catalogue, write for prices, stating quantity and variety wanted.

There is no crop so much benefited by the introduction of fresh, new seed as the Potato. ORDER EARLY WHILE OUR STOCKS ARE COMPLETE



Russet Potatoes

## EARLY VARIETIES

Sacks contain 165 pounds or 2¾ bushels

**EARLY SIX WEEKS.** (Certified.) A very early Potato, somewhat resembling the Early Ohio.

**EARLY ROSE.** (Certified.) This is genuine stock of the old standard Early Rose Potato. Although one of the earliest varieties it still retains its popularity.

**EARLY OHIO.** (Certified.) A sort that is well known by market-gardeners who are after a first-early Potato for home trade; the tubers are almost round, with pink skin and of excellent quality.

**IRISH COBBLER.** (Certified.) An extra-early, round, white Potato. Vines yield heavily and the tubers are of extremely fine quality. An excellent all-round variety, either for the home garden or growing commercially. About a week to ten days later than Early Ohio.

Treat Seed Potatoes with Du Bay Semesan Bel  
See page 72

Irish Cobbler Potatoes



## LATE VARIETIES

Sacks contain 165 pounds or 2¾ bushels

**HIRUCO No. 9.** (Certified.) Grown from Hiruco stock seed, direct from originators. This smooth-skinned Rural type Potato was produced from a seed-ball in 1905. Since its inception it has been widely distributed among particular growers and in the latter years has been cultivated in New York state by more growers entering their crops for inspection than has any other one variety. In 1919 the originators selected this variety on which to do special work for their leader, believing it to have the greatest combination of good points of any Rural type Potato. This variety has always excelled in its eating quality, heavy-yielding ability, shallow and well-placed eyes, the latter making it cut to much better advantage for seed than do many of the other well-known varieties. The extensive selection has increased the setting ability and freed this source of the diseases which are so common. Its smooth white skin makes it have a beautiful appearance and therefore satisfies a wider range of markets than a rougher skinned tuber.

**RUSSET.** (Certified.) It is an exceptionally heavy yielder, table quality of the very best, and with smooth, velvety, russet skin and shallow eyes. No Potato can surpass it in uniform and handsome appearance. It is very fine-grained, cooks as white as flour, and is of splendid flavor; an excellent keeper and retains its good eating qualities until late in the spring. It is one of the hardiest varieties known. Its great productiveness, handsome color and resistance to diseases make it a very popular Potato and one especially suited to our locality.

**CARMAN No. 3.** (Certified.) Extra large, oblong, slightly flat, white. Vines are extra-good growers and yield an immense quantity of tubers of uniform size. One of the best late varieties; of excellent quality; good keeper.

**SIR WALTER RALEIGH.** (Certified.) The tubers vary from round to oblong in shape, uniformly of good size, white-skinned and of excellent quality. A good keeper, and, like Carman No. 3, a very heavy yielder.

**Fertilizer.** We recommend E. Frank Coe's Columbian Fertilizer, or Gold Brand Fertilizer, as excellent for Potatoes. See page 65 for prices.

**Potato Machinery.** If you are interested in Potato Machinery, write for special catalogue giving detailed descriptions of Potato Planters, Diggers, and Sprayers.



## FLOWER SEED DEPARTMENT

Each year the interest in flowers for garden and home decoration increases and more people turn to the growing of flowers for recreation and pleasure. Flower-lovers will find a number of new varieties in our lists this year, as well as all of the old friends. We have devoted most of our attention to the "annuals," that is, the kinds which grow, produce flowers, mature, and die the same season, since these are generally found most satisfactory in the average garden. Among the Annuals are flowers for every purpose, tall and low-growing, trailing and climbing, for cutting and for garden display. Those who want Perennials, the kind which live from year to year, usually prefer to purchase the plants already started, although a great deal of the pleasure in gardening comes in raising your own plants from seed.

### ASTERS

The Asters deserve to lead the list, for there are few flowers more desirable or satisfactory to grow. The beginner will find their culture easy, while the experienced gardener can exercise his skill in producing flowers of giant size or unusual form. The early Asters commence to bloom in late July; the late types follow in August or September and continue to bloom through October until killed by frost.

Asters will grow in any good garden soil, but they prefer an open, sunny situation and they respond amazingly to fertilizers and good cultivation. It is advisable to change the location of the Aster bed each year if you want large flowers and lots of them. For early bloom, start the seed in a window-box indoors or in a coldframe or hotbed, in March, giving the little plants plenty of light and water as required, and thinning them out to stand 3 to 4 inches apart, or transplanting them when a few inches high to small pots to make them sturdy. Set them out in the garden in May, after all danger from late spring frosts is past. For solid beds of color, set the plants 8 to 10 inches apart, but if large flowers and long stems are wanted for cutting, plant them at least 1 foot apart in rows  $1\frac{1}{2}$  to 2 feet apart. The seed may also be sown outdoors in early May with equally good results, except that the plants will not come into bloom so soon.

If the plants show a tendency to wilt or the tops die, the trouble is probably due either to root-aphis or stem-rot, and the most effective remedy is frequent cultivation and sprinkling the entire surface of the bed with air-slaked lime or wood-ashes. The little black Aster beetle which attacks the flowers can best be destroyed by hand-picking.

**SEMPLER'S BRANCHING.** Our selected strain of this fine, tall, late-blooming type is very popular with home-gardeners. It produces extra-large flowers, with heavy, incurved petals, on long, stiff stems. A magnificent sight in the garden from late August until frost and ideal for cutting. Beds of separate colors are most attractive.

**Pure White, Dark Blue, Rose-Pink, Crimson.** Each, pkt. 10 cts.,  $\frac{1}{2}$  oz. 85 cts., oz. \$1.50.

**Mixed.** All of the above colors. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 75 cts., oz. \$1.25.

**QUEEN OF THE MARKET ASTERS.** The earliest type, commencing to bloom in July. The plants are low and bushy, bearing quantities of large, deep flowers.

**White, Pink, Crimson, Lavender, Purple.** Each, pkt. 10 cts.,  $\frac{1}{2}$  oz. 85 cts., oz. \$1.50.

**Mixed Colors.** Pkt. 10 cts.,  $\frac{1}{2}$  oz. 75 cts., oz. \$1.25.

**ALYSSUM.** The ever-popular and always satisfactory flower for edging beds or planting in porch-boxes or rockeries. Sow the seed in the open ground any time from early April to June. Blooms all summer.

**White Sweet.** The old-fashioned variety. Low-growing and spreading; sweet-scented; flowers pure white. Pkt. 5 cts.,  $\frac{1}{2}$  oz. 15 cts., oz. 25 cts.

**Little Gem.** A dwarf form which makes dense, round, little bushes about 6 inches high, covered with white flowers; very fragrant; particularly fine for edging. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 25 cts., oz. 40 cts.

**Procumbens.** Carpet of Snow. Plants grow only a few inches high, and are covered with snow-white blossoms. Best for florists' use. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.



Semple's White Branching Asters

**AGERATUM.** This thrifty annual, sometimes called "Floss Flower," is splendid for low borders and edging, and is often used for porch-boxes. From seed sown outdoors in May, it comes into bloom in July and flowers continuously until frost, but in order to have blooming plants earlier in the season, the seed is commonly started indoors in March. The plants should stand 10 to 15 inches apart.

**Blue Perfection.** Valued for its pretty, deep lavender-blue flowers which are borne in great profusion. The plants grow about 15 inches high. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**Dwarf Blue.** Low and compact, growing only about 10 inches high. Small, fluffy, azure-blue flowers. Fine for edging. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**AMARANTHUS.** Striking plants grown for their brilliantly colored foliage. The seed is usually started in the house or hotbed early in the spring, or in a special seed-bed outdoors later on, and the young plants transplanted when a few inches high to the place where they are to stand during the season. Either singly or in groups, they offer most effective contrast to plants with green foliage.

**Tricolor.** Often called "Joseph's Coat." The plants are tall and erect, attaining a height of 5 feet in good soil. The luxuriant foliage is gorgeously marked with scarlet, yellow, and green. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**BALLOON VINE.** A rapid-growing annual climber with dark green leaves and small white flowers, followed by curious balloon-like seed-pods. An interesting and desirable vine to grow on porch trellises. Sow the seed during late April or May. Sometimes grown in pots and porch-boxes. Pkt. 5 cts.,  $\frac{1}{2}$  oz. 25 cts., oz. 45 cts.

**BALSAM.** Everyone knows this old familiar flower by the name of "Lady's Slipper." The plants are tender when young so the seed should either be started inside or sown outdoors late in May when the soil and weather are warm. Once started, however, they grow luxuriantly on almost any soil. Thin or transplant to stand about 1 foot apart.

**Double Varieties, Mixed.** Large flowers, resembling camellias, in white, all shades of pink, scarlet, deep crimson, and purple, some of them attractively spotted and blotched. Pkt. 5 cts.,  $\frac{1}{2}$  oz. 25 cts., oz. 45 cts.



Calendulas



Ageratum, Blue Perfection

**BEGONIA.** The Begonias are great favorites, both as pot plants in the home in winter and for outdoor bedding during summer. Although tender and warmth-loving, they are true perennials, blooming profusely at all seasons, their masses of blossoms being set off by attractive foliage. The seed is fine and must be sown on well-prepared, rich soil in the greenhouse or in shallow boxes placed in a warm, sunny window.

**Vernon.** Brilliant deep scarlet flowers and glossy, bronzed-colored leaves. Dwarf and bushy in growth. Pkt. 25 cts.

**Prima Donna.** Makes large, handsome plants, with a profusion of light rose-pink flowers and shining green foliage. Extra fine. Pkt. 25 cts.

**Gracilis Luminosa.** Large bright scarlet flowers. Pkt. 25c.

**Mixed Everblooming Varieties.** Pkt. 25 cts.

**CALENDULA.** The Calendulas or Pot Marigolds are among the brightest and easiest to grow of all garden annuals. They prefer a sunny location but will thrive on any soil and bloom continuously from early summer until late fall. Sow the seed during April or May and thin the plants to 8 to 10 inches. On good soil they grow 15 to 18 inches tall and make fine flowers for cutting.

**Orange King.** Extra-select Florist Strain. Large, double flowers of deep glowing orange. A favorite for cut-flowers. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 60 cts., oz. \$1.

**Lemon Queen.** Like the above but the flowers are clear lemon-yellow. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 25 cts., oz. 45 cts.

**Double Mixed.** Pkt. 10 cts.,  $\frac{1}{2}$  oz. 15 cts., oz. 25 cts.

**CALLIOPSIS.** Hardy, easy to grow, and free-blooming, Calliopsis is a favorite for cutting. The tall forms are good for mass planting, while the dwarf varieties are especially nice for edging beds or for planting in pots. Sow in April or May and thin to stand 6 to 8 inches apart.

**Golden Wave (Drummondii).** Medium tall, vigorous and bushy, covered with bright golden yellow flowers with brown centers. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 25 cts., oz. 45 cts.

**Dwarf Varieties, Mixed.** Beautiful, compact plants about 8 inches high, with flowers in all shades of yellow, yellow with bronze markings, deep crimson, brown, and various combinations. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 25 cts., oz. 45 cts.

**CANARY BIRD VINE.** A quick-growing, slender annual vine with light green, fern-like leaves and brilliant yellow flowers which some people imagine resemble a bird with half-extended wings. Sow late in May. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 25 cts., oz. 45 cts.

**CARDINAL CLIMBER.** A slender, quick-growing annual vine with exceedingly ornamental, deeply cut leaves, and small, star-shaped flowers of a most brilliant cardinal-red color, borne in the greatest profusion. Sow after the weather and soil are warm. It is advisable to soak the seed for several hours before sowing. Pkt. 25 cts.

**CANDYTUFT.** One of the best of all low-growing annuals for beds and edging. Sow the seed early in the spring, and, when the seedlings are strong enough, thin them to stand 6 to 8 inches apart. Candytuft grows best in a rich moist soil, blooming profusely for a long season.

**Giant Empress.** Undoubtedly the finest of the Candytufts, bearing quantities of extra-large, pure white flower-trusses. Nice for cutting as well as bedding. Pkt. 5 cts.,  $\frac{1}{2}$  oz. 15 cts., oz. 25 cts.

**Perennial Iberis gibraltarica Hybrids.** A compact form with lilac flowers. Pkt. 10 cts.

**Perennial or Evergreen (*Iberis sempervirens*).** Bears pure white flowers in the spring, and the leaves are dark glossy green the year round. Fine for edging the perennial borders. Pkt. 10c.

**CANNAS.** Although the fine orchid-flowered varieties do not reproduce true from seed and must, therefore, be

grown from the roots (for which see page 46), many people prefer to grow the old-fashioned Cannas or "Indian Shot" from seed. To insure the seed's sprouting, make an opening in the hard outer coat with knife or file and then place in damp moss. As soon as started, set out in a well-prepared seed-bed, and later transplant to stand at least 1 foot apart.

**Large-flowered Dwarf Mixed.** Saved from brilliantly colored varieties, including red, yellow, and various striking combinations. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**CANTERBURY BELLS.** The Campanulas, or Canterbury Bells, are biennials, producing their best crop of flowers the second season. They are most effective massed in the borders and are sometimes grown in large pots. Sow the seed any time from early June to August, and protect the plants with straw or leaves over winter.

**Single Varieties, Mixed Colors.** The true "Canterbury Bells." White, Pink, and Blue. Pkt. 10 cts.  $\frac{1}{2}$  oz. 30 cts., oz. 50c.

**Cup-and-Saucer Bells.** A very pretty double form. White, Pink, and Blue, mixed. Pkt. 10 cts.,  $\frac{1}{2}$  oz. \$1.25, oz. \$2.

**CARNATIONS, MARGUERITE.** An improved, large-flowering strain of "Pinks," blooming in three to four months after sowing. The flowers are very fragrant, and last for a long time when cut. The plants are perennial. Sow early in May.

**Mixed Colors.** Pink, White, Scarlet, Yellow, and Variegated. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 75 cts., oz. \$1.25.

**CASTOR BEAN.** Extremely large annual plants that may be used for ornamental hedges, for the center of beds of cannas, and as individual specimens wherever a tropical effect is wanted. Sow in May.

**Zanzibarensis.** A giant strain with leaves often 2 to 2 $\frac{1}{2}$  feet across. The plants sometimes grow 12 feet high and nearly as broad. Dark green, bronze, or reddish foliage. Pkt. 5 cts.,  $\frac{1}{2}$  oz. 10 cts., oz. 15 cts.

**Finest Varieties Mixed.** Many different types varying in color of leaf, stalks, fruit, etc. All large. Fine for tropical effect. Pkt. 5 cts.,  $\frac{1}{2}$  oz. 10 cts., oz. 15 cts.



Giant Empress Candytuft



*Centaurea imperialis*

**CENTAUREA.** A family of very popular and easy-to-grow flowers.

**CYANUS.** Familiarly known as "Cornflower," "Ragged Sailor," or "Bachelor's Button." About 1 $\frac{1}{2}$  feet tall, thriving in almost any situation and blooming freely for a long season.

**Double Blue.** The finest strain of the favorite deep blue Cornflower. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**Mixed Colors.** Pink, White, Blue, and Variegated. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 25 cts., oz. 45 cts.

**GYMNOCARPA (Dusty Miller).** Grows but a foot high, is excellent for edging beds and borders, and will thrive in any location or soil. Foliage is fern-like and of silvery gray color. Flowers white. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 60 cts., oz. \$1.

**IMPERIALIS.** The Giant Sweet Sultan, one of the largest of the Centaurea family and the finest for cut-flowers. The large blooms are borne on long stems and are very fragrant.

**Mixed Colors.** White, Pink, Lavender, Mauve, Purple, Rose, etc. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**CHINESE WOOLFLOWER (*Celosia Childsii*).** An easily grown annual that blooms

continuously over a long season, producing a profusion of massive crimson-scarlet, wool-like flowers. None of the blooms fade until killed by frost, so that the whole plant is a mass of glowing color, resembling an enormous bouquet. Height 3 feet. Sow seed outdoors after danger of frost is past. Pkt. 10 cts.

**CHRYSANTHEMUMS.** Annual Chrysanthemums thrive in any sunny situation and bloom very freely.

**Carinatum hybridum.** Large semi-double, daisy-like flowers in many brilliant colors. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 40 cts. oz. 75 cts.

**CLARKIA.** An attractive annual that does well in partially shaded as well as sunny spots, making loose, shrubby plants 2 to 3 feet high, covered with dainty flowers. Nice for cutting.

**Improved Double, Mixed.** A fine strain, including White, Pink, Salmon, Scarlet, etc. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**COBÆA SCANDENS.** An annual climber that grows quickly and makes a good screen of foliage. The flowers are large and bell-shaped, purple in color. Prefers a moist soil and should not be sown until mid-May. Sometimes called "Cathedral Bells." Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**COCKSCOMB.** The Crested Celosias, or Cockscombs, produce large, brilliantly colored, comb-like heads. They make gorgeous beds and are useful also for borders where bright colors and mass effect are desired. The seed should be started indoors in April or sown in well-prepared soil outdoors late in May.

**Finest Mixed Colors.** Showy heads of Yellow, Orange, Scarlet, and Purplish Crimson. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 60 cts., oz. \$1.

**COLEUS.** Popular bedding plants grown for their ornamental variegated foliage. They are easily raised from seed carefully sown on fine soil in boxes indoors or in the greenhouse, and transplanted to the open late in May.

**Rainbow Hybrids.** A beautifully colored strain. Pkt. 25 cts.

**COLUMBINE.** The Aquilegias, or Columbines are favorite border perennials, blooming in May and June and thriving best in moist, partially shaded spots. The seed may be sown any time from May to August; the plants require no protection over winter.

**Long-spurred Hybrids.** These are the finest of the Columbines, producing large flowers in a great variety of delightful colors. Pkt. 10 cts., ½oz. \$1.25, oz. \$2.

**COREOPSIS.** No flower blooms more abundantly or for a longer season than Coreopsis. Its long stems and bright golden yellow color make it an ideal cut-flower as well as a showy addition to the hardy border. It is easily grown from seed sown any time during late spring or summer and, being perfectly hardy, the plants require no protection in winter and will live for years. Pkt. 10 cts., ½oz. 30 cts., oz. 50 cts.

**COSMOS.** The free-blooming habit, graceful flowers, and delicately cut foliage make the Cosmos one of the most popular and satisfactory of flowers for late summer and fall use.

The plants grow very tall and slender, and each plant will often produce over a hundred flowers. They should not be planted in a spot where they will be in shade during the greater part of the day. Practically any soil will grow good Cosmos. If possible, start the seed indoors in early March, as a long growing season is required. Otherwise, sow in the garden about May 1, and thin the plants to stand about 8 inches apart. Pinch off the tops when plants are 2 feet high to prevent them growing too tall and to make them bushy.

**Mammoth Lady Lenox.** One of the finest varieties of Cosmos ever produced. The blooms are of enormous size and of a most attractive shade of shell-pink. Tall-growing, blooming from early September until killed by frost. Pkt. 10c., ½oz. 25c., oz. 45c.

**Mammoth Fine Mixed.** Red, Pink, and White flowers of the giant, late-blooming type. Pkt. 10 cts., ½oz. 25 cts., oz. 45 cts.

**Early-flowering, Mixed.** A large-flowered strain which commences to bloom a month earlier than the preceding; the best to use for late sowings outdoors. The colors are White, Pink, Red, and Crimson. Pkt. 10 cts., ½oz. 25 cts., oz. 45 cts.

**Double-crested, Late-flowering.** After many years of selection a double-flowering form of Cosmos has been secured, and while the flowers vary in degree of doubleness, all are beautiful. We offer the following named sorts: **Pink Beauty** (soft rosy pink), **Crimson King** (deep rose-crimson), **White Queen** (pure white), pkt. 15 cts., ½oz. \$1.75, oz. \$3.

**Double-crested, Finest Mixed** (all colors), pkt. 15 cts., ½oz. \$1.25, oz. \$2.

**CYPRESS VINE.** A graceful, slender annual climber with very finely cut foliage and bright little flowers which are produced in the greatest profusion. A warm, sunny spot and light, rich soil is preferred. Sow the seed after all danger from frost is past, first soaking it for several hours in warm water to ensure quick germination.

**Mixed Colors.** Flowers brilliant scarlet and pure white. Pkt. 10 cts., ½oz. 30 cts., oz. 50 cts.

**DAHLIAS.** It is quite easy to raise Dahlias from seed, provided it is started early in the spring in the hotbed or in a warm window in the house. Set the plants out late in May in a sunny location, spacing them a foot or more apart.

**Double Varieties, Mixed.** Composed of seed saved from some of the best named sorts. Fine new varieties are produced from seed, no two coming exactly alike in form and color. Pkt. 10 cts., ½oz. 85 cts., oz. \$1.50.

**DAISY, AFRICAN ORANGE.** A very bright and thrifty annual for bedding, growing well even on poor soil. The plants are about 8 inches high, bushy and spreading, producing quantities of flowers in various shades and combinations of yellow and orange. Pkt. 10 cts., ½oz. 60 cts., oz. \$1.



Mammoth Cosmos

**ENGLISH DAISY.** A hardy biennial very useful for low beds and borders, thriving in partial shade as well as sun and preferring a fairly moist spot. If the seed is sown very early in the spring and plants thinned to stand about 6 inches apart, they will bloom the first summer. For very early bloom, sow in a hotbed or coldframe in January or February. Give the plants light protection over winter.

**Double Varieties, Mixed.** Large, deep, double flowers ranging from white to dark crimson. Fine imported seed. Pkt. 10 cts., ½oz. \$1, oz. \$1.75.

**SHASTA DAISY.** Produced by Luther Burbank and recently selected as the official flower of the American Legion, the Shasta Daisy is one of the loveliest of our easily grown hardy perennials. The flowers measure 2½ to 4 inches across, white with yellow center, resembling a giant field daisy. The stems are stiff and strong; fine for cutting, lasting for two weeks or longer in water. Pkt. 10 cts., ½oz. \$1.50, oz. \$2.75.

**DIDISCUS CÆRULEUS.** Blue Lace Flower. Exquisite, lacelike flowerheads of dainty azure-blue, gracefully borne on long stems. Sow seed in March in hotbed and outdoors in May and June and you will have lovely blooms to cut until frost. Pkt. 10 cts., ½oz. 60 cts., oz. \$1.

**DELPHINIUM.** The finest of blue flowers for the hardy border are the Delphiniums, or Perennial Larkspurs. They send up spikes, 4 to 5 feet tall, blooming all summer. Sow the seed in May or June and transplant about 1 foot apart in early September. Perfectly hardy.

**Kelway's Gold Medal Hybrids.** A famous English strain of great size and vigor, producing flowers in all shades of blue. Pkt. 25 cts., ½oz. 75 cts., oz. \$1.25.

**EUPHORBIA.** Showy plants growing about 2 feet high, with ornamental foliage, easily grown from seed which should be sown during May. The plants may be thinned to stand about 6 inches apart.

**Variegata.** "Snow-on-the-Mountain." Leaves deep green, bordered and marked with white. Pkt. 10c., ½oz. 25c., oz. 45c.

**ESCHSCHOLTZIA.** Better known as "California Poppies," these hardy little annuals make very bright beds and bloom from June until frost. The foliage is bluish green in color and delicately cut; the flowers resemble single Poppies but come in a greater variety of colors. The plants are bushy and grow about 8 inches tall.

**Mixed Colors.** Deep golden yellow, bright orange, primrose, rich crimson, white, rose and various other shades and combinations. Pkt. 10 cts., ½oz. 25 cts., oz. 45 cts.



Foxgloves

splashed. Pkt. 5 cts.,  $\frac{1}{2}$ oz. 10 cts., oz. 15 cts.,  $\frac{1}{4}$ lb. 50 cts., lb. \$1.50.

**FOXGLOVE.** The tall spikes of *Digitalis*, or Foxglove, with their long, thimble-shaped flowers, are most effective massed in the borders with a background of shrubby or among lower-growing flowers. The plants send up stems 3 to 4 feet tall, the upper part crowded with blossoms. Immediately after blooming, remove the flower-stalk and some of the larger leaves at the base; this will result in a number of new plants which start from the old crown and will produce flowers the next year. Sow the seed in late May or June and transplant in the fall, spacing the plants 10 to 12 inches apart.

**Mixed Colors.** White, Pink, and Purple flowers, spotted with deep crimson or chocolate in the throat. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

**GAILLARDIA.** The Gaillardias, or "Blanket Flowers," are extra-good bedding plants. They are vigorous and bushy, producing their large, showy blooms all summer long.

**Grandiflora.** A perennial variety which, if given a little protection over winter, will live in the garden for years. The flowers are large and very bright, coming in orange-yellow, scarlet, and crimson, and various combinations of red and yellow. Desirable for cutting as well as garden display. Sow seed in May and space the plants about 1 foot apart. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

**GERANIUM.** Great favorites for bedding and window-boxes. Seed saved from the choicest varieties. Pkt. 25 cts.,  $\frac{1}{2}$ oz. \$1.75, oz. \$3.

**GLOBE AMARANTH.** The *Gomphrena*, or Globe Amaranth, is one of the "straw flowers" or "everlastings" so popular for winter bouquets. The plants grow 2 to 3 feet tall, with globe-shaped flowers which may be cut and dried in their natural colors. Sow in April or May and thin to about 8 inches apart.

**Mixed Colors.** White, Pink, and Purplish Crimson. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

**GODETIA.** These are very brilliant, free-flowering annuals that seem to prefer a rather poor, heavy soil. Sow the seed in April and thin to stand about 10 inches apart. The plants are bushy, with attractive foliage, and the flowers are quite large, somewhat resembling single hollyhocks. Gardeners who have not grown Godetias should try them, as they make most attractive beds and borders.

**Dwarf Compact, Mixed.** The most improved type, with flowers White, Pink, Red, Deep Crimson, and Red and White. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 40 cts., oz. 75 cts.

**FORGET-ME-NOT.** The familiar blue Forget-me-not, or *Myosotis*, is a biennial but it will bloom the first summer from seed sown in early spring. If early spring flowers are wanted, sow in July and transplant the young plants to their permanent bed about the middle of September. A partially shaded location and moist soil give best results. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 85 cts., oz. \$1.50.

**FOUR O'CLOCK.** The Four o'Clocks, or old-fashioned "Marvel of Peru," make most effective beds and annual hedges. The plants grow about 2 feet tall, broad and bushy, with lustrous dark green leaves and quantities of fragrant flowers which open late in the afternoon and remain open all night, closing again the next morning. Sow in April or early May and thin plants to stand about 1 foot apart. Four o'Clocks will grow vigorously in any sunny spot.

**Mixed Colors.** Flowers White, Yellow, Lilac, Pink, and all shades of Red, some beautifully striped and

**GOURDS.** Some of the Gourds are ornamental in fruit as well as foliage and are excellent for covering old fences or stumps and trailing on trellises and arbors; other kinds produce fruit useful in various ways; and all are interesting to grow. Sow the latter part of May.

**Dish-Rag.** Sometimes called Sponge Gourd. The inside of the ripe fruit is like a tough, fibrous cloth or sponge. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 60 cts.

**Dipper.** The ripe fruits, cut away and cleaned out, make very serviceable dippers. They are often seen in the country, hanging by "the old oaken bucket." Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 60 cts.

**Ornamental Varieties, Mixed.** Includes a great number of interesting and diverse forms of Gourd. Pkt. 10 cts., oz. 20 cts.,  $\frac{1}{4}$ lb. 60 cts.

**GYPSOPHILA.** The annual *Gypsophila*, or "Baby's Breath," is largely used in making up bouquets and is a most attractive adjunct to the cut-flower garden. The plants are large and bushy, with feathery foliage and little star-shaped flowers, growing thriftily in any garden. Sow in April or May and thin to 1 foot.

**Elegans, White.** Pure white flowers. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

**HELICHRYSUM.** This is the best of the "Straw Flowers," exceedingly popular for its bright, lasting colors. The flowers are borne on long stems and are often 2 to 3 inches in diameter. Sow in April or May and thin to 10 inches apart. To preserve the flowers for permanent bouquets, pick them when half opened and hang them by the stems, head down, to dry in a shady place.

**Monstrosum, Mixed.** Giant, double flowers, in an assortment of colors, including Reds, Yellow, Orange, Carmine, Violet, etc. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

**HELIOTROPE.** The old favorite, prized for its delightful fragrance. It is a tender perennial that can be grown in pots or in the garden. Start the seed indoors in March and transplant to the garden late in May, or sow outdoors in a finely prepared seed-bed after the soil and weather are warm. The plants may be cut back in September, potted up and taken in the house for winter.

**Extra-Fine Mixture of Dwarf Varieties.** Pkt. 10 cts.,  $\frac{1}{2}$ oz. \$1.75, oz. \$3.

**HOLLYHOCK.** The Hollyhocks need no description. Wherever tall-growing plants can be used they are wonderfully effective, with a charm all their own. They are biennials or perennials and the seed is best sown in July or August for blooming the following summer. The plants should be given a light protection of leaves the first winter. Almost any soil will do, but they bloom most freely and continuously on a deep, loamy soil and in a sunny situation.

**Finest Double Varieties, Mixed.** This extra-fine strain grows 5 feet tall and produces large, double flowers in White, Yellow, all shades of Pink and Red, and Maroon. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 60 cts., oz. \$1.



Double Hollyhocks

**JAPANESE HOP.** A very rapid-growing annual vine which, on account of its dense, attractive foliage, is valuable for porch-screens and arbors. It is not particular as to soil and will stand hot, dry weather. The growth is thicker and the leaves broader than the common hop of commerce.

**Green-leaved.** The ordinary form of Japanese Hop. Pkt. 10 cts., 1/2 oz. 15 cts., oz. 25 cts.

**Variegated-leaved.** Leaves splashed with green on white ground. Pkt. 10 cts., 1/2 oz. 15 cts., oz. 25 cts.

**HUNNEMANNIA.** A very desirable flower of the poppy family, sometimes called Giant Yellow Tulip Poppy. The plants are bushy and grow 1 1/2 to 2 feet tall, with bluish green, finely cut leaves and many bright yellow flowers, 3 to 4 inches across, blooming all summer. Sow the seed early in the spring, and thin to stand at least 1 1/2 feet apart. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

**HYACINTH BEAN.** (*Dolichos Lablab*). A very pretty annual climber which quickly grows to a height of 8 to 10 feet and bears quantities of clustered flowers which resemble pea blossoms, followed by lustrous purple pods. Ornamental and useful wherever a dense shade is not needed. Sow the seed in late May, preferably in light, dry soil.

**Mixed Colors.** Flowers, White and Deep Lavender. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

**ICE PLANT.** A low-growing annual with tender stems and leaves, portions of which are transparent and resemble little icicles. It is interesting and valuable for basket and vase-planting, and for edging beds of taller-growing plants. Sow the seed after all danger from frost is past and thin or transplant to 8 to 10 inches apart. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

**JOB'S TEARS.** An ornamental grass which grows 2 to 3 feet high and bears large, ivory-white seeds from which it gets its name. The children enjoy making necklaces from the hard seeds. Pkt. 5 cts., 1/2 oz. 15 cts., oz. 25 cts.



Kochia

**KOCHIA.** A very attractive and symmetrical annual hedge plant, also known as "Summer Cypress" and "Burning Bush." It grows about 2 feet high, making beautifully rounded bushes which resemble clipped evergreens. During the summer the foliage is bright, light green but in the fall the color changes and, in the course of a week or two, the whole plant is a ball of crimson. It will grow on almost any soil but thrives best in full sun. Sow the seed during the latter part of May and thin or transplant the plant when a few inches high to stand about 1 1/2 feet apart. Pkt. 10 cts., 1/2 oz. 25 cts., oz. 45 cts.

**LOBELIA.** Dainty little plants, popular for porch-boxes, vases, and low beds. They should have a deep, moist soil and the seed should be started indoors in February or March and the plants set out in May.

**Crystal Palace Compacta.** Rich dark blue flowers; dark green foliage; dwarf and compact in growth. Pkt. 10 cts., 1/2 oz. \$2.25, oz. \$4.

**LARKSPUR.** Favorite, easy-to-grow annuals, producing their tall spikes very freely for several weeks during summer. They are most effective planted in the border in groups among lower-growing flowers. Sow the seed in April and thin or transplant to stand 8 to 10 inches apart.

**Double Dwarf Rocket, Mixed.** The plants of this free-blooming dwarf strain grow about 1 1/2 feet tall. The colors include Light and Dark Blue, White, Pink, Carmine, and Violet. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

**Tall Double Stock-flow-ered, Mixed.** Plants 3 feet tall, with candelabra-like branches and long spikes closely set with large, double flowers. Light and Dark Blue, White, Pink, Carmine, and Violet. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

**LUPINS.** The Lupins, or "Sun-Dials," as

they are sometimes called, are fine for planting in moist or partly shaded spots, although they will not thrive in a sour soil. They make bushy plants with very attractive leaves and long spikes, closely set with blossoms. Give them plenty of lime, wood-ashes, bone-meal, or other soil-sweetening fertilizers.

**Polyphyllus.** A hardy perennial form which grows 2 1/2 to 3 feet tall, and comes in White, Pink, and Lavender-Blue. Sow in May or June and thin to 1 1/2 feet apart. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

**MARIGOLD.** Vigorous, free-blooming annuals, thriving on any soil but preferring plenty of sunlight. They are prized for their brightly colored flowers which are set off by handsome, very dark green foliage. The African Marigolds grow about 2 feet tall with immense globular blooms, while the French kinds are only about 10 inches high with smaller flowers but more of them.

**African Orange Prince.** Very large and double; deep glowing orange. Pkt. 10 cts., 1/2 oz. 35 cts., oz. 60 cts.

**African Lemon Queen.** A companion to Orange Prince, but clear lemon-yellow. These two varieties, planted on rich soil, produce enormous flowers. Pkt. 10 cts., 1/2 oz. 35 cts., oz. 60 cts.

**African Double, Mixed.** Shades of orange and yellow. Pkt. 10 cts., 1/2 oz. 35 cts., oz. 60c.

**French Dwarf, Mixed Colors.** Double flowers; orange and yellow variously striped and marked with reddish brown. Splendid for edging beds. Pkt. 10 cts., 1/2 oz. 30 cts., oz. 50 cts.

Gladiolus make a very attractive addition to any flower-garden. See page 47.



Larkspur



Marigold



Mignonette

**MIGNONETTE.** Highly valued for its distinct fragrance. It can be grown in the garden, or in pots in the house any time during the year. For outdoor plants, sow the seed about May 1, in a dry, sunny spot. By shading the plants during midsummer, the season of bloom may be prolonged until late fall.

**Common Sweet.** Small flowers but very free-blooming and extremely sweet-scented. Pkt. 5 cts., ½ oz. 10 cts., oz. 15c.

**Giant Machet.** A much-improved florists' strain with giant spikes of reddish green florets. Pkt. 10 cts., ½ oz. 30 cts., oz. 50 cts.

**MIMULUS.** Various known as "Musk Plant" and "Monkey Flower." They are dwarf, inclined to trail, and profuse in bloom, the flowers bearing a resemblance to a mask or face. Nice for baskets and vases.

**Moschatus.** Musk-scented foliage and small yellow flowers. Pkt. 10 cts., ½ oz. \$5, oz. \$9.

**MOMORDICA.** Vigorous climbing vines with ornamental fruits, and foliage that is dense enough to make a pleasant shade.

**Charantia** (Balsam Pear). Grown by the Chinese under the name of "La-Kawa." The pear-shaped fruits are edible and are usually prepared by boiling before they are fully ripened. Pkt. 5 cts., ½ oz. 15 cts., oz. 25 cts.

**Balsamina** (Balsam Apple). More slender and graceful than the Balsam Pear. Flowers yellow, with dark centers; fruits orange, round and about 3 inches in diameter, sometimes dried and used in medicinal preparations. Pkt. 5 cts., ½ oz. 15 cts., oz. 25 cts.

**MOONFLOWER.** Quick-growing, slender vines with big, round blossoms that open in the evening and are closed during the day. They succeed best if the seed is sown in a hotbed or box indoors and transplanted once or twice before setting outdoors. Do not sow outdoors or set out plants until all danger from frost is past.

**Grandiflora Alba.** Clear white flowers, 4 to 5 inches in diameter. Pkt. 10 cts., ½ oz. 40 cts., oz. 75 cts.

**Heavenly Blue.** Flowers of a most attractive shade of sky-blue, shaded with rose at the edges. Sometimes grown in pots. Pkt. 10 cts., ½ oz. 60 cts., oz. \$1.

**MORNING-GLORIES.** Fine for covering fences and trellises on account of their rapid, luxuriant growth. They bloom freely all summer. Sow in late April or May.

**Fine Mixed.** The common Morning-Glories in a splendid assortment of colors, including Light and Dark Blue, Rose, Bright Red, Violet, and Variegated. Pkt. 5 cts., oz. 10 cts., ¼ lb. 25 cts., lb. 75 cts.

**Giant Japanese.** A strain of Morning-Glories with extra-large flowers of unusually fine colors. White, Pink, Mauve, Chocolate, Purple and various other attractive colors, many bordered with white or blotched with white in the throat. Extra-fine. Pkt. 5 cts., oz. 20 cts., ¼ lb. 50 cts., lb. \$1.50.

**MOURNING BRIDE.** It is a pity this flower does not have a more pleasing name for it is one of the finest annuals for cutting. Botanically it is Scabiosa and it is sometimes called "Pincushion Flower." It will grow in almost any situation, attaining a height of 1½ to 2 feet and blooming for a long season. The flowers are carried on fine long stems.

**Mixed Colors.** White, Pink, Scarlet, Crimson, Lavender, and Blackish Maroon. Pkt. 10 cts., ½ oz. 30 cts., oz. 50 cts.

**NASTURTIUMS.** We know of no flowers that are easier to grow or give more general satisfaction than Nasturtiums. They will thrive on any soil—in fact, they seem to bloom most freely on soil that is only moderately good—and they flower all summer long in all kinds of weather. Sow the seed in April, scattering it sparingly so that no thinning will be required, in drills about an inch deep.

**Dwarf Varieties, Fine Mixed Colors.** The dwarf or "Tom Thumb" Nasturtiums are fine for beds and edging, any place where masses of color are desired. The plants grow 10 to 12 inches high, rounded and bushy, and covered with flowers from June until frost. The colors range from Straw-Yellow to Deep Orange and from Delicate Rose to Dark Crimson and Maroon, as well as Red and Yellow Bicolors. Pkt. 5 cts., oz. 10 cts., ¼ lb. 30 cts., lb. \$1.

**Tall Varieties, Fine Mixed Colors.** The tall or climbing Nasturtiums are useful for covering fences and low trellises, or may be allowed to trail over stumps and rockwork. The flowers and leaves are larger than in the dwarf type and the colors are, if possible, even more varied and brilliant. Pkt. 5 cts., oz. 10 cts., ¼ lb. 30 cts., lb. \$1.

**NICOTIANA.** Fine annuals for the tall border, thriving best on a deep, rich soil. They grow about 2½ feet high, with large, attractive foliage at the base and clusters of delicately fragrant, trumpet-shaped flowers on long stems. It is best to start the seed indoors in March as the young plants are quite tender, but the seed may be sown in fine soil outdoors after all danger from frost is past and the seedlings transplanted when 2 to 3 inches high. Often called "Sweet-scented" or "Flowering Tobacco."

**Affinis.** A vigorous form which bears quantities of fragrant, bluish-white blossoms that open during the early morning and evening. Easy to grow from seed. Pkt. 10 cts., ½ oz. 25 cts., oz. 45 cts.

**Sanderæ Hybrids.** The flowers are larger than the preceding and come in white and shades of pink and red. Pkt. 10 cts., ½ oz. 40 cts., oz. 75 cts.

**NIGELLA.** A very interesting and pretty annual, nice for bedding and cutting, easily and quickly grown from seed in any sunny spot. It has finely cut foliage and a curious network of bracts about the flowers, which are followed by odd seed-pods. Sometimes called "Love-in-a-Puff" and "Devil-in-a-Bush." Sow the seed in April or May and thin to stand 8 inches apart. Grows a foot high.

**Blue** (Miss Jekyll). Fine double azure-blue flowers. Pkt. 10 cts., ½ oz. 30 cts., oz. 50 cts.

**White.** Flowers pure white. Double. Pkt. 10 cts., ½ oz. 30 cts., oz. 50 cts.



Dwarf Nasturtiums

## PANSIES

To grow the finest and largest Pansies, remember plants thrive best in cool weather; sow seed at a time that will bring them into bloom very early in the spring or fall. Without a doubt, the best results are secured by sowing in late July or August and protecting the young plants over winter with a covering of strawy manure or a deep blanket of leaves. They will then be ready to begin blooming as soon as the weather opens up in the spring and will continue to flower until hot weather. The next best time to sow is very early in the spring, in February or March, starting the seed in a box indoors or in a coldframe and setting the plants outdoors the latter part of April. Pansies should be given plenty of room, at least 8 inches between plants, and good cultivation, also a liberal supply of water during dry weather. If set out in a spot that is shaded part of the day, where the soil is deep and moist, and the flowers picked daily, the plants may be kept blooming all summer, but the flowers will always run small in hot weather. Fall-blooming plants are secured by sowing in a cool, shaded spot in June or early July.

**Fine Mixed Colors.** A splendid assortment of select English, French, and American varieties for bedding, including many bright and beautiful colors. Pkt. 10 cts., 1/2 oz. \$1.50, oz. \$2.50.

**Cassier's Giants.** A famous French strain of very large-flowered Pansies, all of them of the popular "faced" or blotched type. The colors and markings are gorgeous. The plants are vigorous and carry their flowers erect on long, strong stems. Pkt. 20 cts., 1/2 oz. \$4, oz. \$7.

**Steele's Mastodons.** This is a fine American selection which produces the largest Pansies of all, the flowers often measuring 2 1/2 inches in diameter. The plants are large and sturdy and exceptionally free-blooming. The colors are magnificent, including many fine reds and purples. An ideal strain for florists' use as well as home-gardens. Pkt. 20 cts., 1/2 oz. \$4, oz. \$7.

## PERENNIAL PEAS.

Hardy climbers, attaining a height of 5 to 6 feet each season and living from year to year. They bear quantities of flowers that resemble the old-fashioned Sweet Peas except that they have no fragrance. They grow well on stone walls, fences, and low trellises. Sow any time from May to August.

**Mixed Colors.** Including Red, Rose, and White. Pkt. 10 cts., 1/2 oz. 40 cts., oz. 75 cts.



Phlox Drummondii. See page 40



Steele's Mastodon Pansy

## PETUNIAS

For solid beds of color, borders and edging, vases and porch-boxes; in fact for every purpose except cutting, the Petunias are surpassed by few if any of the easily grown garden annuals. They come into bloom early and continue to flower profusely all summer long, thriving on poor soil and in the hottest weather. Sow the seed in April or May, scattering it thinly on fine sifted soil and, instead of covering it, press it firmly into contact with the earth with a smooth board. When the seedlings are about 2 inches high, transplant them to the place where you want them to bloom, spacing them 6 to 12 inches apart, according to variety. For extra-early flowers start the seed in a box indoors or in a coldframe in March.

**Dwarf Inimitable.** Round, bushy plants growing about 7 inches high, covered with single flowers of maroon, crimson, and rose, all striped or starred with pink or white. Very free-blooming and fine for low beds and edging. Pkt. 10 cts., 1/2 oz. 75 cts., oz. \$1.25.

**Rosy Morn.** Vigorous plants, 10 inches tall, compact and free-flowering. Flowers soft carmine-pink with white throat. Pkt. 10 cts., 1/2 oz. \$1.25, oz. \$2.

**Rose of Heaven.** A very dwarf brilliant fiery rose variety similar to Rosy Morn, but more brilliant. Pkt. 10 cts., 1/2 oz. \$1.25, oz. \$2.

**Single Varieties, Fine Mixed.** A splendid assortment of Petunias for bedding, including many fine colors. Pkt. 10 cts., 1/2 oz. 75 cts., oz. \$1.25.

**Double Fringed, Mixed.** A magnificent strain produced by careful hand hybridizing. The flowers are large and have beautifully frilled and crinkled petals. A large percentage will come double. These Petunias make splendid pot plants. Pkt. 50 cts.

## New Fringed Petunias from Oregon

This new strain was originated by a famous American Petunia specialist. The plants are robust and free-blooming.

**White Beauty.** Snowy white. **Pink Beauty.** Clear light pink. **Pride of Portland.** Deep glowing rose. **Scarlet Beauty.** Crimson-scarlet. **Elk's Pride.** Violet-purple; large and usually plain edged instead of fringed.

Above varieties, each, pkt. 25 cts.

**Ruffled Giants, Mixed Colors.** Immense single flowers with ruffled and fringed petals, in all colors. Pkt. 25 cts.

**ANNUAL PHLOX, DRUMMONDII.** Blooming in mid-summer, these easily grown flowers make the most brilliant of beds. They prefer an open, sunny situation, but are not particular as to soil and will give good results under almost any conditions. Sow the seed in April or early May and thin the plants to stand about 4 inches apart. For extra-early flowers start the seed in hotbed or coldframe.

**Tall Finest Mixed.** A gorgeous variety of colors, including Primrose White, Pink, Carmine, Blood-Red, Violet, etc., many with distinct white centers. About 15 inches tall. Pkt. 10 cts., ½oz. 75 cts., oz. \$1.25.

**Dwarf Compact Mixed.** These grow about 8 inches high and quite bushy, making fine borders and ribbon beds. Pkt. 10 cts., ½oz. \$1.25, oz. \$2.

**HARDY PHLOX.** Perennial, producing large heads of brilliantly colored flowers of many shades. 2 to 4 feet high. Pkt. 10 cts., ½oz. \$2, oz. \$4.

**ANNUAL PINKS.** The annual Chinese or Japanese Pinks are very thrifty and attractive garden flowers, coming in a wide assortment of forms and colors, and succeeding on any garden soil. They are nice for cutting. Seed sown in April will give blooming plants early in July.

**Japanese Single Mixed.** An improved strain, producing large, fringed, brightly colored flowers. Pkt. 10 cts., ½oz. 30 cts., oz. 50 cts.

**Chinese, or Indian Double Mixed.** These double forms resemble carnations but they come in a remarkable variety of colors, including many flowers with distinct stripes and borders. Pkt. 10 cts., ½oz. 40 cts., oz. 75 cts.

**PERENNIAL GRASS PINKS.** The Pheasant-Eye, Grass or Clove Pink of the old-fashioned garden, or *Dianthus plumarius* of the botanist, is one of the most pleasing of our low-growing hardy perennials. The plants grow 8 to 10 inches high, with grass-like foliage, and produce in early spring quantities of fringed white or light pink flowers with crimson centers, distinctly clove-scented. On deep, moist soil they will live and increase from year to year with almost no care. Easily grown from seed, sown any time from April to August. Pkt. 10 cts., ½oz. 40 cts., oz. 75 cts.

**POPPIES.** Although the Poppies last for only a short time, while they are in bloom no flowers can rival them in brilliant colors. The seed is fine and should be scattered thinly in the place where the plants are wanted to bloom, as they do not transplant well. Thin if necessary to give each plant room to develop. Sow the annual sorts in April and the perennial kinds June to September. Require plenty of space.

**Shirley, Mixed Colors.** Probably the finest strain of annual, single-flowered Poppies. They grow 12 to 15 inches tall and the flowers range in color from white and pale pink to bright scarlet and deep crimson, including rose with white edge, red with white edge, etc. Very showy. Pkt. 10 cts., ½oz. 30 cts., oz. 50 cts.

**The Tulip Poppy.** The brightest color in annual Poppies. Vivid scarlet flowers somewhat resembling a big Tulip; bluish foliage. Pkt. 10 cts., ½oz. 30 cts., oz. 50 cts.



Portulacas



Shirley Poppies

**Poppy, Double-flowered, Mixed Colors.** Big, shaggy, ball-shaped flowers on 2-foot stems, including all of the ordinary Poppy colors, as well as Mauve, Purple, Maroon, etc. Extra-fine. Pkt. 10 cts., ½oz. 20 cts., oz. 35 cts.

**Iceland Poppies.** A hardy perennial strain, growing about a foot high, with very pretty, single flowers in White, Salmon, Yellow, and Orange, the petals crinkled like crepe paper. This strain is nice for cutting as the flowers last quite well in water. Pkt. 10 cts., ½oz. \$1.25, oz. \$2.

**Orientele.** The big, bright scarlet Decoration Day Poppy. A hardy perennial form bearing immense single flowers in spring. It should be in every garden. Pkt. 10c., ½oz. \$1.25, oz. \$2.

**PORTULACA.** The Portulacas will grow on soil too poor and in places too hot and sunny for any other flower. The plants are low and spreading, commencing to bloom in July and blooming profusely all summer. Sow the seed in late April or May and thin the plants to stand 6 to 8 inches apart. The plants may be moved when in full bloom.

**Single, Mixed Colors.** Includes White, Yellow, Orange, Pink, Carmine, Scarlet, etc. Very bright and attractive. Pkt. 5 cts., ½oz. 60 cts., oz. \$1.

**Double, Mixed Colors.** The flowers resemble miniature roses. All colors. Pkt. 10 cts., ½oz. \$1.75, oz. \$3.

**HARDY PRIMROSES.** These are fine free-blooming flowers for the rockery and perennial borders. They seem to do best in dry soil and will stand some shade. Sow the seed inside in February or early March and transplant to the open ground in April. Give the plants light protection over winter for the first year or two.

**Finest Mixed Colors.** Many shades and colors, the majority with distinct "eyes" or centers. Pkt. 10 cts.

**PYRETHRUM.** Hardy perennial plants very easy to grow from seed sown any time from early spring to late summer. Seed started under glass in February will give blooming plants the first summer. By cutting off the first crop of flowers a second crop will be produced in the fall.

**Double White, or Feverfew.** Ball-shaped, creamy white flowers that are fine for cutting and make a splendid showing in the garden. Pkt. 10 cts., ½oz. 25 cts., oz. 45 cts.

**Golden Feather.** Grown mostly for its showy golden yellow laciniated foliage. Nice for borders. Pkt. 10 cts., ½oz. 25 cts., oz. 45 cts.

**RHODANTHE.** One of the so-called "Everlastings" that can be dried in its natural colors for winter bouquets. It is an easily grown annual, about 1½ feet tall, with silvery gray leaves and very pretty, little, double flowers.

**Mixed Colors.** White, Pink, and Crimson. Pkt. 10 cts., ½oz. 40 cts., oz. 75 cts.



### Semple's Branching Asters

Tall, late-blooming Asters with flowers of the finest type, having long, graceful petals and stiff stems for cutting. They may be had in a wide range of color, White, Dark Blue-Purple, Pink, and Crimson. Start the seed early and give good cultivation for the best flowers. In separate colors. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 85 cts., oz. \$1.50. Mixed colors. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 75 cts., oz. \$1.25.

### Snapdragons

Lovely garden flowers of easiest culture, fine for either bedding or for cutting. Start the seed early. They grow about 15 inches high and include all shades of Pink, Salmon, Mauve, Orange, Red, White, and Yellow. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 30 cts., oz. 50 cts.

### Annual Phlox

Brilliant, midsummer-blooming, bedding flowers. Almost no other flower blooms so freely, so brightly, or so long. The tall varieties reach 15 inches and may be had in Primrose, White, Pink, Carmine, Blood-Red, many with distinct eyes or lighter centers. Pkt. 10 cts.,  $\frac{1}{2}$ oz. 75 cts., oz. \$1.25.





## Gladiolus

For continuous flowers with the least possible care and trouble. Plant ten days apart, from May to July.

1. **Peace.** Very large; white, feathered violet.
2. **Anna Eberius.** Velvety red-purple; large.
3. **Byron L. Smith.** Orchid color, white and mauve.
4. **Alice Tiplady.** Orange-saffron and golden red.
5. **Mrs. Dr. Norton.** Delicate pink and pale rose.
6. **Mr. Mark.** Rich violet and purple with golden center.
7. **Le Marechal Foch.** Dainty rose-pink; very large.
8. **Crimson Glow.** Very large; glowing crimson.
9. **Golden Measure.** Soft golden yellow of very pure tone.

Three bulbs of each of above (27 bulbs), postpaid, for \$2.25  
Six bulbs of each of above (54 bulbs), postpaid, for \$4

With either Collection we will include the "Gladiolus" book, a complete guide on Gladiolus culture, for 50 cents.



## New Fringed Petunias

Gorgeous, big flowers, ruffled and fringed, and desirable for all purposes. In separate colors, see page 39.

## Mammoth Dahlia-flowered Zinnias, Mixed

The newest and largest of the Zinnias, with very deep, double flowers made up of numberless, small, silky petals. The mixture includes a number of novel and most attractive colors. Pkt. 10c., 1/2 oz. 75c., oz. \$1.25.





Salvia

**SALPIGLOSSIS.** A popular, easily grown garden annual, richly colored and fine for cutting. The flowers are borne in clusters at the top of long stems and are produced very freely from midsummer to fall. Sow the seed in late April or May and thin the plants to stand about 10 inches apart.

**Dwarf Varieties, Finest Mixed Colors.** These grow about 2 feet tall. The flowers range from White, Rose and Pale Blue to Deep Red and Violet, beautifully penciled with gold on the petals and with darker shadings in the throat. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 60 cts., oz. \$1.

**SALVIA.** The Scarlet Salvia, or Flowering Sage, makes the most gorgeous masses of flaming red found in all nature. For formal beds, for grouping in front of porches and for similar purposes, it is exceedingly popular, requiring little care after the

plants are established, and blooming profusely from June until killed by frost. Start the seed indoors or in hotbeds very early, during January or February if possible. Give the seedlings plenty of light, warmth, and water, and when they are 2 to 3 inches high transplant them into small pots or space them out to stand 6 inches apart. Transplant them to the garden in late May, giving them a sunny location and rich, deeply dug soil if possible, setting the plants at least  $1\frac{1}{2}$  feet apart.

**Splendens.** The original Scarlet Sage. It grows about 2 feet tall and is covered with large, bright red blossoms all summer long. Pkt. 10 cts.,  $\frac{1}{2}$  oz. \$1.75, oz. \$3.

**Bonfire.** A select strain, fine for mass planting, as it is very compact in growth and has exceedingly brilliant extra-large flowers. Pkt. 10 cts.,  $\frac{1}{2}$  oz. \$2, oz. \$3.50.

**America.** Considered to be the finest of all, particularly for low beds and borders as it grows only about  $1\frac{1}{2}$  feet tall. It is an exceptionally profuse and constant bloomer, the plants a mass of light blazing scarlet. Pkt. 10 cts.,  $\frac{1}{2}$  oz. \$3, oz. \$5.

**SNAPDRAGONS.** Free-blooming garden favorites, of the easiest culture, seeming to thrive best on poor soil and producing their beautiful flowers all summer long. Sow the seed in the garden in April and when the plants are 2 to 3 inches high, thin or transplant them to stand 10 to 12 inches apart. Early spring flowers may be secured by sowing in July or August and protecting the plants over winter like pansies, or they may be cut back and potted up in the fall to bloom indoors. No flower-garden is complete without at least a few of these handsome flowers.

**Large-flowering Half-Dwarf Varieties, Mixed.** These are the best sorts for outdoor bedding and nice for cutting. They grow about 15 inches tall and the flowers come in a great wealth of beautiful colors, including all shades of Pink, Salmon, Mauve, Orange, Red, White, and Yellow. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.



Snapdragons

**SENSITIVE PLANT.** The Sensitive Plant, or *Mimosa pudica*, gets its name from its interesting habit of closing its leaves at the slightest touch. Sow the seed in the house in March and transplant to the open ground late in May. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**STOCKS.** The old-fashioned Ten Weeks Stocks are beautiful, free-flowering, sweet-scented annuals, requiring a mellow soil but otherwise very easy to grow. Sow the seed in April or May and give the plants 12 to 15 inches of space. They may be potted up in the fall and will bloom almost as freely in the house as out-of-doors.

**Dwarf German.** A vigorous garden strain that grows about 1 foot high and sends up quantities of heavy spikes crowded with blossoms, many double, in a great range of delicate colors. Very sweet-scented and splendid for cutting. Pkt. 10 cts.,  $\frac{1}{2}$  oz. \$1.25, oz. \$2.25.

**SUNFLOWERS.** The garden Sunflowers are quite different from the ordinary field type. They are vigorous annuals, thriving even on poor soil, providing they receive plenty of sunlight. Sow the seed in April or May and give the plants plenty of room. They are fine for massive border and back-ground plantings.

**Golden Chrysanthemum-flowered.** Strong plants, growing 4 to 5 feet high, with many branches bearing big, double, globular flowers like chrysanthemums, of the purest golden yellow. The stems are long and stiff making the flowers ideal for cutting for massive decorations. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**Miniature (Cucumerifolius).** Bushy plants about 4 feet tall, loaded with comparatively small, single flowers, bright yellow with dark brown centers. Fine for cutting as well as display in the garden. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**Red.** An attractive hybrid strain that bears large single or semi-double flowers ranging in color from pink to deep purplish red and mahogany. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 40 cts., oz. 75 cts.

**Mammoth Russian.** The common variety and the largest and most productive, growing to a height of 6 to 8 feet, producing seed-heads of enormous size. Oz. 10 cts.,  $\frac{1}{4}$  lb. 15 cts., lb. 40c.



Sweet Williams

**SWEET WILLIAM.** Hardy, thrifty perennials, great favorites in all gardens; easily grown from seed. The flowers are borne in large trusses and are delightfully fragrant. Sow any time from early spring to July. The plants should stand at least 8 inches apart.

**Single Varieties, Mixed Colors.** White, Pink, Red, Dark Crimson and other colors, many with distinct "eyes" or margins of a different shade. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**Double Varieties, Mixed Colors.** The double flowers are very attractive in form as well as colors. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 50 cts., oz. 90 cts.

## SWEET PEAS

Success with Sweet Peas in our climate depends largely on getting an early start in order that the vines may make their growth and commence to bloom before hot weather. Some people always sow their Sweet Peas on St. Patrick's Day; others believe in sowing on Good Friday; but the point is that the seed can and should be sown just as early in the spring as the ground can be put in shape to receive it. Next in importance is the insuring of a plentiful supply of moisture and fertility about the roots; this is accomplished by digging a trench a foot or more deep and then refilling it to within 6 inches of the top with loose soil mixed with a fair quantity of manure, compost, or other humus material if the soil be poor, and with a scattering of lime or wood-ashes to correct any acid condition. Sow the seeds on top of this layer, spacing them 1 to 2 inches apart, and cover with an inch of soil. As the plants grow, fill in the trench around them until the level of the surface is reached. By this method the roots will be deep enough so that they will not be seriously affected by hot, dry weather. Thin out, if necessary, so as to leave 4 to 6 inches between plants, and support the vines with brush, netting, or strings.

Sweet Peas bloom best in an open, sunny situation. Keeping the flowers picked as fast as they open prolongs the period of bloom. The old-fashioned or Grandiflora type of Sweet Peas are hardy and very floriferous and the flowers are heavily scented, although of only medium size and rather stiff in form. The new Spencer or waved Sweet Peas are much larger and finer in form as well as colors, but not quite so free-blooming. Modern gardeners and florists as a rule grow only the Spencer varieties. **Use Stimugerm on Sweet Peas.** See page 74.

## SPENCER SWEET PEAS

Distinguished by giant size, often measuring 2 inches in diameter, and by beautifully waved petals. Hundreds of varieties are known to specialists and new sorts are being constantly produced by English and American breeders, but we believe that the varieties we offer comprise the best and most satisfactory of the new as well as old, in all of the favorite colors.

|   | Pkt.   | Oz.    | 1/4lb. | Lb.    |
|---|--------|--------|--------|--------|
| <b>Asta Ohn.</b> Pinkish lavender.....                              | \$0 10 | \$0 30 | \$1 00 | \$3 00 |
| <b>Countess Spencer.</b> Rose-pink.....                             | 10     | 30     | 1 00   | 3 00   |
| <b>Crimson King.</b> Rich ox-blood-crimson..                        | 10     | 30     | 1 00   | 3 00   |
| <b>Elfrida Pearson.</b> Giant shell-pink.....                       | 10     | 30     | 1 00   | 3 00   |
| <b>Etta Dyke.</b> Giant pure white.....                             | 10     | 30     | 1 00   | 3 00   |
| <b>Fiery Cross.</b> Bright orange-scarlet.....                      | 10     | 30     | 1 00   | 3 00   |
| <b>King Edward.</b> The best deep red.....                          | 10     | 30     | 1 00   | 3 00   |
| <b>Margaret Atlee.</b> Rich cream-pink.....                         | 10     | 30     | 1 00   | 3 00   |
| <b>Mary Pickford.</b> Cream-pink.....                               | 10     | 60     | 2 00   | 7 00   |
| <b>Miss California.</b> Beautiful orange-salmon and cream-pink..... | 10     | 60     | 2 00   | 6 00   |
| <b>New Miriam Beaver.</b> Light apricot-buff-pink.....              | 10     | 30     | 1 00   | 3 00   |
| <b>Othello Spencer.</b> Dark chocolate-maroon.....                  | 10     | 30     | 1 00   | 3 00   |
| <b>Primrose Spencer.</b> Pale creamy yellow..                       | 10     | 30     | 1 00   | 3 00   |
| <b>Royal Purple.</b> Immense bright purple...                       | 10     | 30     | 1 00   | 3 00   |
| <b>Wedgwood.</b> Fine clear blue.....                               | 10     | 30     | 1 00   | 3 00   |
| <b>Scott's Finest Mixed Spencers.....</b>                           | 10     | 25     | 75     | 2 50   |

## Bulbs for Fall Planting

Our stock is of finest Selected Bulbs, imported direct from best growers of Holland and France—Tulips, Hyacinths, Narcissus, Crocuses, and others. Call or write for Catalogue, ready about September 1.



Mary Pickford Sweet Peas

## GRANDIFLORA SWEET PEAS

These are the old-fashioned Sweet Peas, not so large or delicately formed as the Spencers, but more profuse in bloom.

|  | Oz.    | 1/4lb. | Lb.    |
|--|--------|--------|--------|
| <b>America.</b> Bright red and white striped.....  | \$0 10 | \$0 35 | \$1 25 |
| <b>Countess of Radnor.</b> Lavender....  | 10     | 35     | 1 25   |
| <b>Dorothy Eckford.</b> Large; pure white.....   | 10     | 35     | 1 25   |
| <b>Hon. Mrs. E. Kenyon.</b> Large; primrose.....   | 10     | 35     | 1 25   |
| <b>Janet Scott.</b> Bright pink and buff..   | 10     | 35     | 1 25   |
| <b>King Edward VII.</b> Bright red.....  | 10     | 35     | 1 25   |
| <b>Lady Grisel Hamilton.</b> Lavender..  | 10     | 35     | 1 25   |
| <b>Lord Nelson.</b> Deep navy-blue.....  | 10     | 35     | 1 25   |
| <b>Miss Willmott.</b> Orange-pink.....   | 10     | 35     | 1 25   |
| <b>Mrs. Collier.</b> Primrose.....   | 10     | 35     | 1 25   |
| <b>Mrs. Walter Knight.</b> Rose-purple..   | 10     | 35     | 1 25   |
| <b>Navy-Blue.</b> Indigo-blue and violet..   | 10     | 35     | 1 25   |
| <b>Othello.</b> Deep maroon.....   | 10     | 35     | 1 25   |
| <b>Prima Donna.</b> Fine pink.....   | 10     | 35     | 1 25   |
| <b>Queen Alexandra.</b> Scarlet.....   | 10     | 35     | 1 25   |
| <b>Eckford's Finest Mixture.</b> The best of the Grandiflora varieties, in all colors..... | 10     | 30     | 1 00   |



Mammoth Verbenas

**THUNBERGIA.** A slender climbing or trailing annual with many little flowers, varying from palest primrose to deep buff-yellow, all with dark centers, from which it derives its common name, "Black-eyed Susan." It is fine for low trellises and for trailing over the edges of porch-boxes and vases. Sow the seed in May, after danger from frost is past, or, if early flowers are wanted, start indoors in February or March. Thunbergia may also be grown in the greenhouse at any time of year. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 40 cts., oz. 75 cts.

**VERBENA.** Low, spreading plants with handsome dark green foliage and great clusters of sweet-scented flowers all summer long. Old favorites for low beds and edging, also for boxes and vases. Sow indoors in February or March and transplant to the garden in May, spacing the plants 15 inches apart. The seed may also be sown directly in the open ground early in May. A dry, sunny location seems to suit them best.

**Mammoth Hybrids.** These varieties produce extra-large flower-heads with individual florets often measuring an inch or more in diameter. **Lucifer** (scarlet); **Italian Striped**, **Auricula-eyed Mixed**, **Red**, **White**, **Blue**, or **Pink**, in separate colors or Mixed. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 60 cts., oz. \$1.

**Choice Mixed.** Contains many colors including many striped and "eyed," as well as self-colored sorts, but not so large as the preceding. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 40 cts., oz. 75 cts.

**VINCA.** This tender perennial is better known as Madagascar Periwinkle and will bloom the first year if seed is sown early. It forms handsome, bushy bedding plants that bloom profusely all summer from seed sown indoors in February or March, and is fine for pot culture. The plants grow to a height of 1 to 1½ feet.

**Choice Mixed.** An excellent assortment of Red, White with Rose center, Pure White, and Pink. Pkt. 10 cts.

### Our Nursery Department

See pages 49 to 58

We furnish high-grade stock of *Roses, Climbing Vines, Hardy Perennials, Perennial Phlox, Peonies, and Shrubs*. All of our stock is No. 1 grade and will be delivered to our customers in the best possible condition.

**WALLFLOWER.** The Wallflowers are perennials but in our rigorous climate they require protection over winter and are best carried over in a coldframe. They grow best in a deep, moist soil. Sow the seed indoors in March or outdoors late in May and space the plants about 8 inches apart. The flowers are clustered on spikes 1½ feet tall, very fragrant.

**Single Varieties, Mixed Colors.** Artistic shades of coppery red, bright brown, bronzy yellow, etc. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 40 cts., oz. 75 cts.

**WILD CUCUMBER.** A very rapid-growing, vigorous climber, often running 30 to 40 feet in a season. It bears small, white, slightly fragrant flowers, followed by spiny seed-pods. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 20 cts., oz. 35 cts.

**ZINNIAS.** The recent improvements in these old-fashioned garden annuals have made them more popular than ever. Few flowers provide a more gorgeous display with less care or attention; all they require is a sunny spot to cause them to grow and bloom vigorously from early summer until frost. The seed may be sown in the garden any time during April or May and the plants thinned or transplanted to stand 8 to 18 inches apart, according to variety. The largest specimen blooms are produced on plants that are grown on a mellow, moderately rich soil and given ample room to develop. If broad, bushy plants are desired, pinch out the top buds when about 15 inches tall.

**Mammoth Dahlia-flowered.** The newest and largest of the Zinnias, with very deep, double flowers made up of numberless small, silky petals. **Crimson Monarch** (red), **Dream** (purple), **Exquisite** (pale rose), **Oriole** (orange-gold), **Scarlet Flame** (bright scarlet), pkt. 10 cts.,  $\frac{1}{2}$  oz. \$1.25, oz. \$2.

**Finest Mixed.** All colors. Pkt. 10 cts.,  $\frac{1}{2}$  oz. 75 cts., oz. \$1.25.

**Scott's Double Giants.** Next to the new Dahlia-flowered class, these are the tallest and largest of the Zinnias and constitute a great improvement over the old types. The plants grow 2½ feet tall and bear immense, double blooms often 5 inches in diameter. **Pure White**, **Clear Yellow**, **Rose-Pink**, **Bright Scarlet**, **Deep Crimson**, or **Purple**, in separate colors or Mixed. Each, pkt. 10 cts.,  $\frac{1}{2}$  oz. 75 cts., oz. \$1.25.

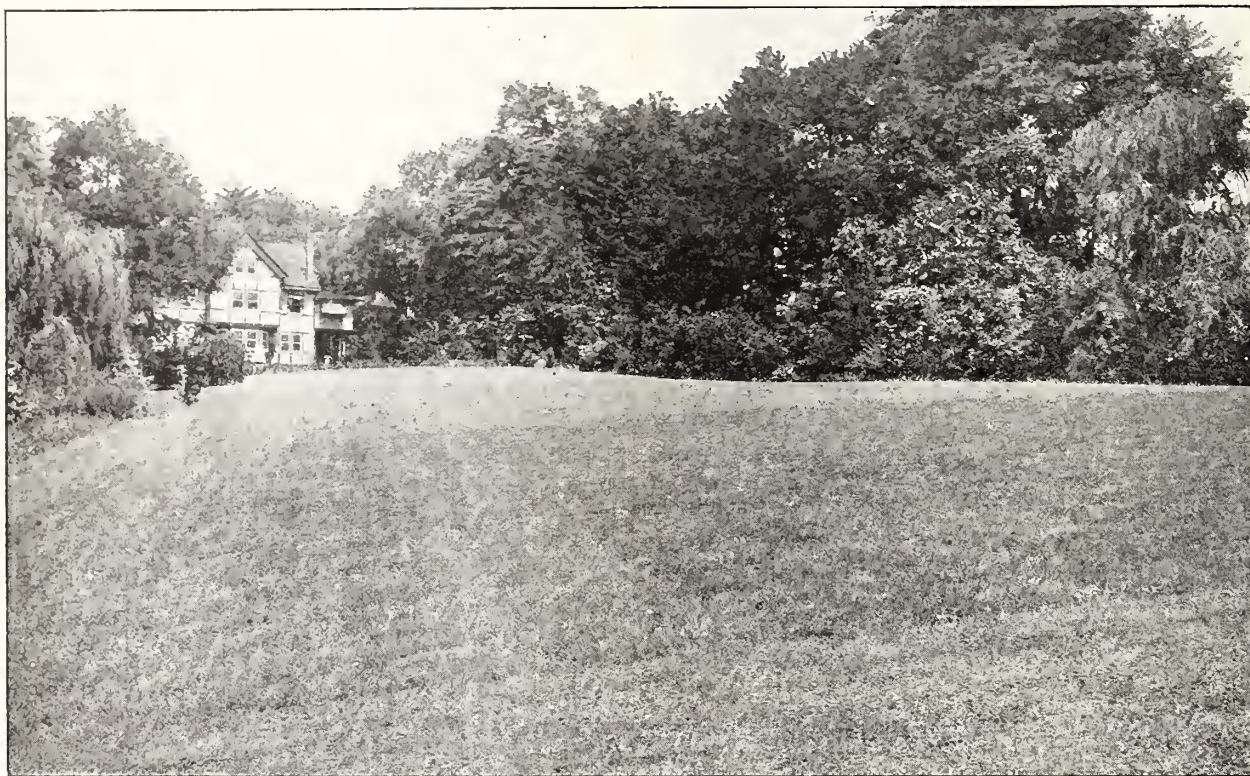
**Elegans, Tall Varieties, Mixed.** The type most commonly grown. Pkt. 5 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.

**Elegans, Dwarf Varieties, Mixed.** Pkt. 5 cts.,  $\frac{1}{2}$  oz. 30 cts., oz. 50 cts.



Scott's Double Giant Zinnia

## LAWN GRASS SEEDS



### *For Your Lawn—Start with Good Seed*

The first and most important requirement for a smooth, lasting green lawn is pure, vigorous seed of the most suitable varieties of grass. No one kind of grass will meet all the varying conditions of climate and soil. For best results it is necessary to sow a mixture of different sorts, but to avoid trouble with weeds and have a solid green lawn at all times and under all conditions, such a mixture must be composed of the right kinds of grass in the right proportions.

**The Scott Lawn Grass Mixtures** are made of the best re-cleaned American and European grass seeds it is possible to procure. They contain no "fillers," such as unhulled Red Top, light-weight Blue Grass, etc., and they are as free from weeds as the most modern and careful methods of harvesting and cleaning can make them. They have been used in making thousands of fine lawns. Better lawn grass mixtures cannot be made.

### SCOTT'S "PURITY" LAWN GRASS SEED

This is an extra-fine mixture of re-cleaned Grass Seeds of the varieties that are best adapted to general lawn sowing. In making up this mixture it was our aim to make a formula that would produce a durable and lasting lawn, withstanding the extreme heat of the summer, the cold and frost of winter, as well as periods of drought and moisture that mark our Pennsylvania climate. We believe the testimony of our customers will prove that we have succeeded in our efforts, and a lawn that is sown with our Lawn Grass Mixture will show a rich, velvety appearance in five to six weeks after sowing.

Sow at the rate of about one pound to each 300 square feet; this will give you a liberal seeding. About 100 pounds will be required to seed an acre of lawn. A measured bushel will weigh about twenty-seven pounds.  $\frac{1}{2}$  lb. 25 cts., lb. 45 cts., 10 lbs. \$4, 25 lbs. \$9.25, 100 lbs. \$35. A pound of "Purity" Lawn Grass Seed will measure about  $1\frac{1}{2}$  quarts. At our pound rate, the price of a quart of seed would be about 33 cents. If wanted by mail, add postage at your zone rate, according to the table on inside front cover page.

**Shady Lawn Mixture.** This mixture is made from Grasses which will thrive under the shade of trees and buildings, where comparatively little sun reaches the ground, and in places where ordinary Grasses will not succeed. The quantity of seed required for sowing is practically the same as for our Lawn Grass Mixture.  $\frac{1}{2}$  lb. 30 cts., lb. 55 cts., 10 lbs. \$5, 25 lbs. and over, 47 cts. per lb. If wanted by mail, add postage at your zone rate, according to the table on inside front cover page.

**Putting-Green Mixture.** Our Putting-Green Mixture is made from selected stocks of those European and American Grasses which have proved the best for the purpose. As we import large quantities of Grasses, we are well equipped for preparing special Golf-Course Mixtures.  $\frac{1}{2}$  lb. 40 cts., lb. 70 cts., 10 lbs. \$6.50, 25 lbs. and over, 60 cts. per lb. If wanted by mail, add postage at your zone rate, according to the table on inside front cover page. (Special prices will be quoted on larger quantities.)

The Pennsylvania Seed Law requires that every package of lawn grass or other grass seed mixtures offered for sale, weighing 8 ounces or more, shall bear a label giving the names of the different varieties of grasses composing the mixture, the percentage of weed seeds, and the percentage of inert matter. Jobbers of cheap, low-grade lawn seed mixtures avoid the labeling law by putting their mixtures up in packages containing less than 8 ounces. These mixtures generally contain a high percentage of chaff and dirt, and many kinds of weed seeds, and are made up quite largely of grasses entirely unsuited for lawn purposes. Scott's Lawn Grass Seeds are always fully and accurately labeled. This information is important to you and you should insist on getting it when buying Lawn Seed.

PURE SEEDS GIVE BEST RESULTS

# SUMMER-FLOWERING BULBS



Caladium esculentum

## Caladium esculentum (Elephant's Ear)

For imposing masses of tropical foliage there is nothing so effective or so easily grown as the Elephant's Ear. The plants grow from 3 to 5 feet high, with enormous bright green leaves, veined with lighter green, broad and thick and bearing a decided resemblance to elephant's ears, whence the popular name. They thrive best in a moist, rich soil but can be grown in almost any situation. Plant the bulbs late in May, after all danger from frost is past, spacing them 2 to 4 feet apart and covering them a few inches deep. The larger the bulb, the larger the plant and the more space required. If extra-large plants are desired, start the bulbs indoors in pots or large boxes, in March or early April, and transplant to the open about June 1. Give plenty of water throughout the season; liquid manure is very beneficial. The bulbs may be carried over winter by digging them up after frost has killed the leaves, drying them in the sun, and then storing in boxes with sand or dry soil in a frost-proof cellar.

|                                   | Each   | Doz.   | 100    |                                    | Each   | Doz.   | 100     |
|-----------------------------------|--------|--------|--------|------------------------------------|--------|--------|---------|
| 5 to 7 inches circumference.....  | \$0 08 | \$0 75 | \$5 00 | 11 to 13 inches circumference..... | \$0 40 | \$3 50 | \$25 00 |
| 7 to 9 inches circumference.....  | 10     | 1 00   | 7 00   | 13 to 15 inches circumference..... | 50     | 5 00   | 40 00   |
| 9 to 11 inches circumference..... | 20     | 2 00   | 14 00  |                                    |        |        |         |

If wanted by mail, add for postage, 6 cts. per doz. for 5 to 7 and 7 to 9-in. bulbs, 15 cts. per doz. for 9 to 11-in. bulbs, and 25 cts. per doz. for 11 to 13 and 13 to 15-in. bulbs

## TUBEROSE

Old-fashioned flowers valued for their fragrance. Start the bulbs indoors in March and transplant to the open in early May.

**WHITE PEARL.** The best variety. Flowers creamy white, large, and double.

**First-Size Bulbs.** 6 cts. each, 70 cts. per doz., \$4.50 per 100. If wanted by mail, add 10 cts. per doz. extra.

**Mammoth Bulbs.** 12 cts. each, \$1.25 per doz., \$9 per 100. If wanted by mail, add 12 cts. per doz. extra.

## HARDY LILIES

Showy garden flowers of the utmost beauty and stateliness, which are enormously popular just now. Plant them 6 to 8 inches deep and as early as possible.

**Auratum** (Gold-banded Lily). White with crimson spots and golden stripes. 40 cts. each, \$4 per doz.

**Regale** (The Royal Lily). Enormous, trumpet-shaped flowers, with waxen white petals suffused with gold inside and stained with purple outside; fragrant. It is very hardy and does well in almost any situation, growing 2 to 4 feet high and bearing its blooms in a whorl at the top. 75 cts. each, \$7.50 per doz.

**Speciosum album.** Pure white. 40 cts. each, \$4 per doz.

**Speciosum rubrum.** White, shaded with deep rose and spotted red. 40 cts. each, \$4 per doz.

**Tigrinum splendens** (Tiger Lily). A larger and more prolific flowering form of the old-fashioned Tiger Lily. It grows 4 to 6 feet tall, bearing an immense cluster of showy orange-red and brown flowers, which last for weeks. Very easy to grow, and increases year by year in beauty and size. 25 cts. each, \$2.50 per doz.

If wanted by mail add 5 cts. each or 15 cts. per doz.



Lilium auratum

## Our Nursery Department

See pages 49 to 58

We furnish high-grade stock of *Roses*, *Climbing Vines*, *Hardy Perennials*, *Perennial Phlox*, *Peonies*, and *Shrubs*. All of our stock is No. 1 grade and will be delivered to our customers in the best possible condition.

## CANNAS

The modern Cannas with their splendid foliage and large, gorgeously colored flowers surpass all other plants for massive beds and heavy borders. They are very easy to grow, thriving best in a sunny, well-drained spot. For extra-large plants and heavy foliage effects, the soil should be well manured. Dig the bed deep and plant the roots after the middle of May, setting them about 4 inches below the surface and 1½ to 2 feet apart, depending on variety, the tall sorts requiring more space than the dwarf. The plants will bloom continuously from July until frost. If the roots are started in March in pots or boxes of sandy soil placed in a sunny window and given plenty of water, the plants will be several inches high when it is time to set them outdoors, and they will come into bloom a month to six weeks sooner.

If wanted by mail, add 10 cts. per doz. to the following prices

**Alphonse Bouvier.** A popular bedding variety, with green leaves and bright crimson flowers. Height 4½ feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

**Ambassador.** Brilliant rich cherry-red flowers of immense size. Growth very vigorous and massive. Foliage and stalks bronze. Height, 4 feet. 12 cts. each, \$1.25 per doz., \$9 per 100.

**City of Portland.** Clear glowing rosy pink flowers of unusually large size; broad, rich green leaves. Wonderfully effective and the best Canna of its color. Height 3½ feet. 12 cts. each, \$1.25 per doz., \$9 per 100.

**Crimson Bedder.** Foliage dark green; flowers deep blood-red. Height 3 feet. 8 cts. each, 90 cts. per doz., \$6 per 100.



Canna



Bed of Cannas

**Fiery Cross.** A famous variety, with big, substantial carmine-red flowers and beautiful bluish green foliage. A constant bloomer. Height 4 feet. 12 cts. each, \$1.25 per doz., \$9 per 100.

**Florence Vaughan.** A favorite bedding Canna. Flowers yellow with red spots; leaves light green. Height 4½ feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

**Gladiator.** Bright golden yellow flowers, freely dotted with crimson; foliage broad and bright green; a most effective bedder. Height 4½ feet. 8 cts. each, 90 cts. per doz., \$6 per 100.

**Golden Gate.** The brightest of the yellow sorts, opening pure golden yellow but becoming suffused and striped in the center with crimson and apricot as the flower develops. Leaves bright green. Height 4 feet. 10 cts. each, \$1 per doz., \$7 per 100.

**King Humbert.** Undoubtedly the most popular Canna in cultivation and, on account of its rich purplish bronze foliage, one of the most handsome and conspicuous. Flowers orange-scarlet, freely produced for a long season. Height 4½ feet. 10 cts. each, \$1 per doz., \$7 per 100.

**Meteor.** One of the finest tall-growing Cannas. The broad-petaled flowers are dazzling crimson and are carried in big clusters. Foliage deep green. Vigorous and blooms for a long season. Height 5 feet. 10 cts. each, \$1 per doz., \$7 per 100.

**Mrs. Alfred Conard.** Rich salmon-pink flowers of great size and substance, come in enormous clusters. The finest bedding Canna of its color. 12 cts. each, \$1.25 per doz., \$9 per 100.

**Shenandoah.** Flowers salmon-pink borne in large clusters; foliage rich ruby-red. Height 4 feet. 10 cts. each, \$1 per doz., \$7 per 100.

**Statue of Liberty.** Flowers blazing flame-red. The foliage is of a rich, luxuriant bronzy shade. The leaves are larger than any Canna we know. Height 6 to 7 feet. 10 cts. each, \$1 per doz., \$7 per 100.

**The President.** The finest red Canna in existence and considered by many growers to be the most valuable Canna of any color ever introduced. Enormous glowing scarlet flowers of wonderful substance borne erect on strong stems; luxuriant deep green foliage. Blooms continuously from midsummer until frost. Height 4 ft. 12 cts. each, \$1.25 per doz., \$9 per 100.

**Queen Charlotte.** Rich pomegranate-red flowers bordered with golden yellow. Height, 3½ ft. 8 cts. each, 90 cts. per doz., \$6 per 100.

**Wintzer's Colossal.** Remarkable for its exceptionally large, broad-petaled flowers, often measuring 8 inches across. Deep scarlet with light green foliage. Height 5 feet. 10 cts. each, \$1 per doz., \$7 per 100.

**Yellow King Humbert.** A large-flowered yellow variety, popular for tall beds. Flowers deep yellow, blotched with red; leaves dark green. Height 5 feet. 10 cts. each, \$1 per doz., \$7 per 100.

### BULBS FOR FALL PLANTING

Tulips, Hyacinths, Narcissus, Crocus, and others.  
Our catalogue will be ready about September 1.  
Write for it.

## GLADIOLUS

There are few flowers to compare with the Gladiolus for all-round usefulness in the home-garden—and few flowers are more lovely or easier to grow. Their graceful form, attractive colors, and characteristic markings have given them the popular name of "Garden Orchids." Any ordinary garden soil will grow fine Gladiolus, providing they receive plenty of sunlight. Plant the bulbs any time after mid-April up to the end of June, setting them about 4 inches deep and 6 inches apart. The fine improved sorts we offer make ideal cut-flowers. If cut when the first one or two flowers have opened and kept supplied with fresh water, the remaining flowers will open and the spikes will last for over a week. For a constant supply of flowers for cutting from August to frost, make plantings every week or ten days during the spring. The bulbs may be dug in the fall before the ground freezes and stored over winter in dry, cool, but frost-proof places.

If wanted by mail, add 8 cts. per dozen for postage

**Alice Tiplady.** Bright saffron-orange; large, open flowers on strong, stiff stems. 10 cts. each, \$1 per doz., \$7 per 100.

**Anna Eberius.** Large spike of velvety purple flowers. Extra fine. 9 cts. each, 90 cts. per doz., \$6 per 100.

**Baron Hulot.** The nearest to blue of any of the Gladiolus. The flowers are of medium size and deep violet-blue in color; spikes long and graceful. 10 cts. each, \$1 per doz., \$7 per 100.

**Byron L. Smith.** Pale mauve-pink of the shade generally known as orchid, shaded with delicate white. 10 cts. each, \$1 per doz., \$7 per 100.

**Crimson Glow.** Very fine large crimson flowers in big spikes. 10 cts. each, \$1 per doz., \$7 per 100.

**E. J. Shaylor.** Splendid deep rose-pink. One of Kunder's best ruffled varieties. 9 cts. each, 90 cts. per doz., \$6 per 100.

**Elf.** Lemon-yellow buds, opening to large, pure white flowers with pale yellow lower petal. 10 cts. each, \$1 per doz., \$7 per 100.

**Empress of India.** Large flowers of an unusual color. Deep velvety brownish maroon. 10 cts. each, \$1 per doz., \$7 per 100.

**Evelyn Kirtland.** A beautiful rosy pink, shading to darker at the edges. 10 cts. each, \$1 per doz., \$7 per 100.

**Flora.** Golden yellow. Similar to Schwaben, but a better color. 10 cts. each, \$1 per doz., \$7 per 100.

**Golden Measure.** Pure golden yellow; very large flowers. Robust grower. 15 cts. each, \$1.50 per doz., \$10 per 100.

**Halley.** A quick, vigorous grower, always one of the first to bloom. Long spikes of delicate salmon-pink flowers. 9 cts. each, 90 cts. per doz., \$6 per 100.

**Herada.** A tall, giant-flowered Gladiolus with fine mauve-colored flowers. Unusual and most attractive. 12 cts. each, \$1.25 per doz., \$9 per 100.

**Jack London.** Light salmon with vermilion stripes; canary-yellow throat with ruby stripes. 12 cts. each, \$1.25 per doz., \$9 per 100.

**La Marechal Foch.** Beautiful, large, delicate pink flowers. 10 cts. each, \$1 per doz., \$7 per 100.

**Mary Pickford.** Lovely creamy white with soft sulphur-yellow throat. 10 cts. each, \$1 per doz., \$7 per 100.

**Mr. Mark.** Rich violet and purple blooms of splendid texture, illuminated by a bright gold center. 12 cts. each, \$1.25 per doz., \$9 per 100.

**Mrs. Dr. Norton.** Silvery white, base tinged with pink. Splendid cut-flower. 10 cts. each, \$1 per doz., \$7 per 100.

**Mrs. Francis King.** Tall and strong-growing, with flowers of a light, bright shade of scarlet. Fine for mass effects. 6 cts. each, 60 cts. per doz., \$4 per 100.

**Mrs. Frank Pendleton.** Salmon-pink with deeper flush in the throat and distinct maroon blotches on the lower petals. A favorite for cutting. 9 cts. each, 90 cts. per doz., \$6 per 100.

**Mrs. H. E. Bothin.** Light geranium-pink, with a flame-red center. Flowers ruffled and well arranged on the spike. 10 cts. each, \$1 per doz., \$7 per 100.

**Mrs. Leon Douglas.** Begonia-rose, striped with flame-scarlet, lower petals pale lemon, speckled ruby. Immense flowers. 15 cts. each, \$1.50 per doz., \$12 per 100.

**Panama.** Somewhat resembles America but the flowers are larger and a deeper shade of pink. 10 cts. each, \$1 per doz., \$7 per 100.

**Peace.** Large, white flowers, feathered pale lilac. 9 cts. each, 90 cts. per doz., \$6 per 100.

**Pink Perfection.** Delicate apple-blossom-pink; spikes long and slender. 12 cts. each, \$1.25 per doz., \$9 per 100.

**Pride of Lancaster.** Brilliant orange-salmon, with scarlet throat; beautifully ruffled flowers on tall, strong stem. 12 cts. each, \$1.25 per doz., \$9 per 100.

**Purple Glory.** Deepest velvety maroon, with almost black blotches; large, ruffled flowers on very tall, sturdy stems. A real giant in all respects. 15 cts. each, \$1.50 per doz., \$12 per 100.

**Schwaben.** Light yellow with blotch of deep carmine in the center. A sturdy grower with large flowers. 10 cts. each, \$1 per doz., \$7 per 100.

**Scott's Finest Mixed.** This splendid mixture is made up of many named Gladiolus, including the finest sorts in our collection as well as other desirable varieties. Large, healthy bulbs, sure to bloom. 6 cts. each, 60 cts. per doz., \$3.50 per 100.

**Sheila.** Light salmon; large flowers on tall, erect stems. Very early. 10 cts. each, \$1 per doz., \$7 per 100.

**Twilight.** Creamy buff, edges of petals flaked pink; throat primrose-yellow and pink. Splendid ruffled variety. 12 cts. each, \$1.25 per doz., \$9 per 100.

**Virginia.** Flaming scarlet; large, massive flowers, many open at a time, making a gorgeous display of dazzling red. Good forcer. 10 cts. each, \$1 per doz., \$7 per 100.



Gladiolus

## DAHLIAS

It is doubtful if there are any flowers that afford as much general satisfaction as Dahlias. The ease with which they can be grown in any sunny situation, their freedom from pests and blights, their endless variety of color, size, and form, and their great usefulness for cutting as well as garden decoration insure them a permanent place in popular favor, while their low cost makes it easy for everyone to start a collection which can be added to year after year. The roots or tubers should be planted about 4 inches deep in well-dug soil during May or June. Allow at least 2 feet of space between plants. Trim out all but the strongest two or three shoots and when these are about 4 feet high pinch off the tips to encourage branching. If extra-large exhibition blooms are wanted, remove all but one or two of the top buds on each stem. Tall plants should be tied to stakes for support. Dig roots when frost has killed the foliage in the fall, and store in sand or soil in a cool but frost-proof cellar.

If wanted by mail, add 5 cts. each or 25 cts. per doz.

## CACTUS DAHLIAS

These are considered by many to be the most attractive of the Dahlias. They are distinguished by narrow, quilled petals which are often curved and twisted in various forms.

**Attraction.** Beautiful, having soft silvery mauve-rose blooms, with a white suffusion. 75 cts. each, \$7.50 per doz.

**Lawine.** White, showing blush as the flower matures. 30 cts. each, \$3 per doz.

**Mars.** (Hybrid Cactus.) One of the most artistically formed Dahlias on the market. Its long, wavy petals give it great refinement and grace. Salmon-red and rich golden ecru are combined in a way that cannot be described. \$1 each, \$10 per doz.

**Prince of Yellows.** A rich canary-yellow. One of the best yellows for cutting. 30 cts. each, \$3 per doz.

**Walt Whitman.** (Hybrid Cactus.) A good Dahlia of a wild, open growth, with large flowers, and plenty of them, on good, stiff stems. Blooms are deep carmine shaded rose-pink. 50 cts. each, \$5 per doz.

## DECORATIVE DAHLIAS

These include the old-fashioned formal and rather stiff show or "ball" Dahlias, and the newer broad-petaled types of enormous size.

**A. D. Livoni.** An old favorite for cutting. Soft pink. 25 cts. each, \$2.50 per doz.



Cactus Dahlia



Decorative Dahlia

**Auguste Nonin.** A very large flower of fiery red. 30 cts. each, \$3 per doz.

**Canteen.** A fine form of flat Decorative. Flowers of a pretty shrimp-pink. 30 cts. each, \$3 per doz.

**Futurity.** Beautiful deep old-rose. Flowers very large and freely produced. 50 cts. each, \$5 per doz.

**Judge Duncan.** A very pretty crimson-maroon flower. Sure to please wherever good Dahlias are shown. 50 cts. each, \$5 per doz.

**Judge Marean.** Salmon-pink, pure gold, orange-red and yellow blended; large flowers on good, stiff stems. 50 cts. each, \$5 per doz.

**Jack's Discovery.** White, mottled with violet-rose. Unusual and attractive. 30 cts. each, \$3 per doz.

**King of Autumn.** Large, perfectly formed flowers, held erect on stiff stems. The color is a beautiful shade of burnt amber, tinged and shaded old-rose. 30 cts. each, \$3 per doz.

**Lyndhurst.** Rich, vivid scarlet. 30 cts. each, \$3 per doz.

**Marvelous.** Truly a marvelous Dahlia in growth, size, and beauty which is almost impossible to describe. A lovely deep mauve-pink, blended with almost all the shades of a beautiful summer day. \$1 each, \$10 per doz.

**Mina Burgle.** Rich, luminous dark scarlet blooms, on long stiff stems. Splendid both for cutting and garden decoration. Free-flowering. 30c. each, \$3 per doz.

**Miss Minnie McCullough.** Soft yellow, overlaid with bronze. 25 cts. each, \$2.50 per doz.

**Mme. A. Lumiere.** Pale white, violet-red points. 30 cts. each, \$3 per doz.

**Mrs. I. de Ver Warner.** A universal favorite. Clear bright lilac-rose. Strong grower; 5-foot stems. Can be produced with 10-inch blooms by disbudding. 50 cts. each, \$5 per doz.

**Patrick O'Mara.** Flowers 8 inches or more in diameter, and borne on long, stiff stems. They are firmly set at right angles, close to stem. The color is an unusual soft and pleasing shade of orange-buff, slightly tinged with Neyron rose. 50 cts. each, \$5 per doz.

**Pride of California.** Large, deep red flowers of fine form and good keeping qualities, held high on long, rigid stems. 30 cts. each, \$3 per doz.

**Quota.** (Ball Decorative.) In presenting this new variety we are adding to the Dahlia-grower's list a white which will not be surpassed for some time. It is a clear, clean white of very good quality and a good keeper on strong, stiff, long stem, admired by everyone. \$1 each, \$10 per doz.

**The Emperor.** Immense velvety maroon flowers on extra-long stems. A wonderful flower. 75 cts. each, \$7.50 per doz.

**The Red Planet.** Large flowers of splendid form. The color is cerise-red, suffused yellow. Fine for exhibition and garden. \$1 each, \$10 per doz.

## Spiraea Vanhouttei

### Bridal Wreath

A lovely, fountain-like bush with long, arching branches completely enveloped in clusters of small white flowers in May. Grows very quickly and has attractive foliage all season. 2 to 3 ft., 35c. each, \$3.50 per doz.

## Weigela, Eva Rathke

The plant makes a broad, round shrub, and bears myriads of dark crimson, trumpet-like flowers in early summer. It is very showy when in bloom. 1½ to 2 ft., 65 cts. each, \$6.50 per doz.

## Forsythia

The bright yellow flowers come with the first breath of spring and are very cheerful amid the bare branches of later things. The bushes are quick-growing and very graceful. 2 to 3 ft., 50c. each, \$5 per doz.

## Philadelphus coronarius

A tall shrub with fragrant white flowers in June. The old-fashioned Mock Orange. 2 to 3 ft., 50 cts. each, \$5 per doz.



Philadelphus coronarius

## Deutzia gracilis

A dwarfish, bushy little shrub which is covered with clusters of crisp, little white flowers in early summer. It is very pretty in the shrub border or at the edge of the garden. 1½ to 2 ft., 60 cts. each, \$6 per doz.

## Hydrangea paniculata grandiflora

Large, tree-like shrub very popular because of its gigantic heads of white flowers which gradually turn pink and brownish red with age, and hang on all winter. Much used for specimens and big hedges. 2 to 3 ft., 65 cts. each, \$6.50 per doz.

## Spirea, Anthony Waterer

This Spirea is very different from Van Houtte's. The dwarf, erect stems are topped with flat clusters of downy pink flowers in midsummer. Very effective in masses on hillsides or along drives. 1 to 1½ ft., 40 cts. each, \$4 per doz.



Spirea, Anthony Waterer



Hydrangea paniculata grandiflora



Mme. Edouard Herriot



Red Radiance



Souv. de Claudius Pernet



Ophelia

## "The Pittsburgher" Rose Collection

COLLECTION OF 4 ROSES, \$3.25 VALUE FOR \$2.85, POSTPAID

In this choice Collection we have covered the range of color as completely as possible in distinctive varieties. We strongly suggest buying more than one of these Collections—three at least—in order that a fair-sized bed may be filled with them, to provide flowers in sufficient quantity all the time.

**Mme. Edouard Herriot.** A brilliant copper-pink Rose with shades of vivid orange and yellow. It is always variable and striking and is, without question, the showiest Rose that can be planted. The bush is vigorous and unusually healthy.

**Red Radiance.** This fine, upstanding variety bears flowers continuously. They are just like those of its famous parent, Radiance, in shape and size, but bright rose-red or dark carmine-pink. Excellent in every way.

**Souvenir de Claudius Pernet.** Bud is richly yellow and the open flower is pleasing in shape, keeping its fresh, clear color until it falls. The plant is strong and the foliage remarkably attractive.

**Ophelia.** One of the genuine old favorites of many years. The blooms are exquisite in bud and open flower, pale pearl-pink, flushed with rose and yellow. Frequently they are nearly white. Superb for cutting.

*With each collection we will send free a copy of "Garden Roses. How to Make Them Grow and Bloom," a carefully prepared booklet by an experienced Rose-grower, which will tell you how to succeed with Roses*

## "The Fort Duquesne" Rose Collection

COLLECTION OF 6 ROSES, \$5 VALUE FOR \$4.35, POSTPAID

In this group we have assembled six of the choicest everblooming Roses, varieties which can be relied upon for beautiful flowers. The range of color is wide. Three of these collections would make a charming small Rose-garden and provide almost unlimited flowers for cutting.

**Sunburst.** Glowing yellow buds, opening to fine, semi-double flowers of creamy yellow.

**Los Angeles.** Delightful coral-pink, flushed with golden yellow. The flowers are very fragrant.

**Radiance.** The most popular pink garden Rose in the country. Large, free-flowering bushes.

**Briarcliff.** A lovely bright pink Rose like those sold by the florist, with long stems; keeps well.

**Kaiserin Auguste Viktoria.** Exquisite buds and blooms of creamy white, tinted with lemon in the center.

**Francis Scott Key.** Gorgeous, heavy, bright red flowers of enormous size and substance.



Sunburst



Francis Scott Key



Los Angeles



Radiance



Briarcliff



Kaiserin Auguste Viktoria



# Roses, Shrubs, Vines, Flowering Plants

FOR IMPROVING HOME GROUNDS

**T**HE success of this new department since its installation three years ago has fully justified the belief that our customers would appreciate and use the opportunity to obtain from a single source their entire agricultural and horticultural needs.

No argument is necessary to convince well-informed people that to create and to preserve attractive homes and home grounds is most important. The benefits in beautiful surroundings and healthful living are incontestable, to say nothing of the genuine increase in real value to property.

It is almost miraculous what astounding improvement can be made in neglected or unattractive sites by giving a little thought and care to choosing and planting suitable trees, shrubs and flowers. The principles of good taste apply in this outward decoration of the home as much as in all other things. That is, the planting must be simple and economical, and there must be no appearance of fussiness or overcrowding.

Two general rules must be kept in mind. Frame the grounds as a picture by defining its borders with permanent shrubs or trees, and connect the walls of the house with the green of the lawn by massing a few shrubs or bushes at the corners or along the foundations. Against these, as a background, flowers show to best advantage. The lawn should be kept open, clear, and smooth. In the real country, it is well to avoid the formality of clipped hedges; a natural hedge of barberry or a similar plant is better.

Ideas and information may be gleaned from many gardening and agricultural magazines or from the books which our Book Department (pages 207 and 208) offers for that purpose.

**Shade Trees.** In addition to the roses, shrubs, and vines which are described in this catalogue, we take orders for spring delivery of all kinds of ornamental and shade trees, in any amount from one up. These will not be carried in stock; they will only be ordered from the nursery as sold, so that you will receive freshly dug stocks. The earlier they are planted, the better growth they will make. Orders should be placed before March 15th. Ask for prices specifying variety and number wanted.

**Potted and Bedding Plants.** That our plant line may be complete, there will be found in our store, beginning in the spring, a very complete collection of Potted and Bedding Plants for room and garden decoration—palms, ferns, geraniums, and similar standard sorts. You will enjoy visiting the Plant Department. Come in.

**Delivery** of all plants is at the expense of the purchaser, and unless specific instructions are given at the time of purchase, we will ship them by the quickest, safest, and most reasonable method. If to be shipped by parcel post, add to prices given 10 cts. for 1 plant, 20 cts. for 6 plants, 30 cts. for 12 plants.

## ROSES

All the Roses listed in this catalogue are 2-year-old, No. 1, northern field-grown plants, and, with the exception of the climbers, they are budded stock. They are the best the nursery grows, and are stronger, will make a more thrifty growth, and give more blooms than the smaller No. 2 stock sold by department stores.



### HYBRID TEA ROSES

Hybrid Tea Roses are extremely popular, perhaps the most popular Roses grown today. A cross between the Hybrid Perpetuals—which are not perpetual bloomers—and the Teas, which as a class are doubtfully hardy here in the North, they combine the hardiness of the former with the abundance of bloom of the latter—an ideal combination. The Hybrid Teas bloom abundantly for a month or more, beginning early in June; then as new growth is made they produce more blooms, particularly from September until hard frost. There is hardly a day, even in midsummer, when blooms may not be picked from a bed of Hybrid Tea Roses.

That the Hybrid Tea Roses may thrive, they need a rich, well-drained soil and sunny situation. Planting should be done in the early spring, just as soon as the ground can be worked. The best growth is made during the cool spring weather. For spring planting we suggest placing your order immediately so we can make an early delivery.

Insects and diseases are easily controlled. Frequent dusting with nicotine extract and sulphur will control black-spot, mildew, and the sucking insects; should chewing insects appear, arsenate of lead may be added to the dust at the rate of one part to nine parts of sulphur.

Set the plants 2 inches or more deeper than they were in the nursery, so as to get the bud below ground. Protect them over winter by mounding earth up about the stems.

Price, 75 cts. each, \$7.50 per doz., except where noted

**Briarcliff.** A deep rose-pink sport of Columbia with all its good qualities, but a bud a third longer with outside petals coming up to a point. Very vigorous grower and a profuse bloomer. \$1 each, \$10 per doz. Illustrated in color facing page 49.

**Columbia.** Large, fully double, bright lively pink blooms shading darker with age; borne abundantly till frost by almost thornless plants. Strong tea fragrance. Eighth on the twelve "Favored Roses of all America" referendum of the American Rose Society in 1923.

**Duchess of Wellington.** A dependable yellow Rose with spicy fragrance. Flowers large, of intense saffron-yellow, changing to deep coppery yellow as they develop; a lasting cut-flower. Ninth in the twelve "Favored Roses of all America" referendum of the American Rose Society in 1923.

**Francis Scott Key.** An enormous, perfectly formed variety of glowing light red. It is generally best in autumn when it is astonishing in beauty and size. Illustrated in color facing page 49. \$1 each, \$10 per doz.

**General MacArthur.** An unusually good American Rose that has found favor in England. Brilliant glowing scarlet buds that open to strongly fragrant, full blooms; free bloomer. One of the best all-round Roses.

**Golden Emblem.** A very dependable yellow Rose. Large, perfectly shaped blooms similar to Marechal Niel, borne in profusion.

**Gruss an Teplitz.** One of the most useful and dependable Roses. Beautiful, clear crimson-scarlet, fragrant flowers, profusely borne till frost. Most desirable for bedding and a good hedge.

**Hadley.** Very fragrant, double, attractive blooms of velvety crimson borne on unusually long, strong stems.

**Jonkheer J. L. Mock.** Very large, full, and fragrant carmine blooms with deep shadings, silvery pink inside, borne on long, strong stems. It is an intensified La France. An abundant continuous bloomer; fine for beds.

**Kaiserin Auguste Viktoria.** A perfectly formed white Rose of unusual beauty. Popular for many years. Illustrated in color facing page 49.

**Lady Ashtown.** An unusually hardy Hybrid Tea Rose. Large, full, high-centered blooms of light salmon-pink of fair lasting qualities; always recognized by its beautifully recurved petals.

**Los Angeles.** So fine a Rose in every way that no garden is complete without it. An attractive bud, opening to beautiful, silvery salmon-pink blooms. Illustrated in color facing page 49.

**Mme. Butterfly.** A wonderful Rose—an intensified Ophelia. Beautiful spiral bud opening to a large flower of exquisite beauty; soft flesh, shaded rose; fragrant; lasts well when cut.

**Mme. Caroline Testout.** Large, rounded, bright satiny rose blooms with dark center, the edges of the petals bordered soft carmine-pink. Borne continuously all summer.

**Mme. Edouard Herriot.** An indispensable Rose made famous by winning the *Daily Mail* (London) Gold Cup in 1912. Coral-red, shaded yellow and bright rosy scarlet. Illustrated in color facing page 49.

**Premier.** A very popular cut-flower variety of dark rose-pink color. Very large and full, fragrant, and lasts well when cut.

**Sensation.** Rich blackish scarlet, with occasional violet shading. Very large and fragrant, blooming with great freedom even in unfavorable weather.



Duchess of Wellington Rose

### HYBRID TEA ROSES, continued

**Souvenir de Claudius Pernet.** At present, the finest and most dependable yellow Rose. The color does not fade so badly as most yellows, and the flowers are freely and continuously produced. Excellent foliage. Illustrated in color facing page 49. \$1 each, \$10 per doz.

**Mrs. Aaron Ward.** The most profuse blooming yellow Rose. Semi-double, cup-shaped, deep Indian yellow, fragrant flowers. Extremely hardy. Seventh in the twelve "Favored Roses of all America" referendum by the American Rose Society a few years ago.

**Ophelia.** One of the most beautiful Roses. Soft salmon-flesh blooms, the center shaded light yellow at the base of the petals. Unequaled in form, coloring, and fragrance. A good cut-flower. Has large, dark green, leathery, disease-resistant foliage. Third in the twelve "Favored Roses of all America" referendum held by the American Rose Society in 1923. Illustrated in color facing page 49.

**Radiance.** Large, strongly fragrant, light silvery pink to salmon-pink flowers, borne profusely all summer on long, strong stems. First on the list of twelve "Favored Roses of all America" referendum held by the American Rose Society in 1923. Illustrated in color facing page 49.

**Red Radiance.** A sport of Radiance and equally as good, differing only in the beautiful deep red color of the large globular flowers. Very hardy and of the greatest garden value. Illustrated in color facing page 49.

**Sunburst.** Bright, glowing orange blooms, paling slightly at the edges of the petals; gives an excellent imitation of a real sunburst. Illustrated in color facing page 49.

**White Killarney.** Large, long-pointed buds opening to large, loose, pure white, fragrant blooms, on long, strong stems by robust plants.

**William F. Dreer.** The large, double, fragrant golden yellow blooms, shaded peach and old rose, are borne continuously and abundantly by the disease-resistant plant until frost. A new American Rose of great merit.

**Willowmere.** Long, pointed, coral-red buds opening to very large, open, double flowers of a rich shrimp-pink shaded yellow in the center.

### POLYANTHA ROSES

These dwarf Roses produce an abundance of bloom all season. They average 18 inches in height.

Price, 75 cts. each, \$7.50 per doz.

**Baby Rambler.** Small, double red flowers in clusters.

**George Elger.** Graceful sprays of yellow buds that open into lighter flowers.

**La Marne.** Salmon-pink and blush-pink.

**Miss Edith Cavell.** Large clusters of small, semi-double, brilliant scarlet-red flowers, shaded darker.

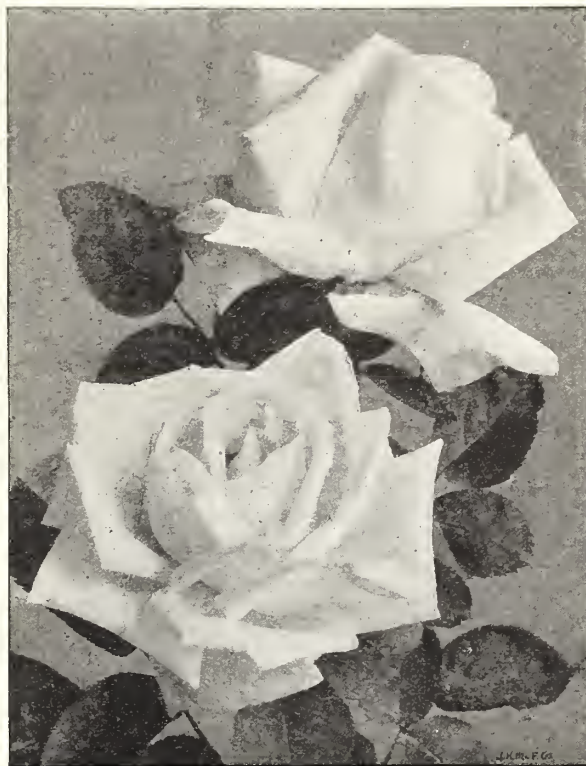
**Yvonne Rabier.** Clusters of small, pure white flowers with creamy bases.



Polyantha Roses

### HYBRID PERPETUAL ROSES

These, because of their wealth of bloom, named June as the month of Roses. They are much hardier, stronger growing plants than the Hybrid Teas and bear an immense crop of bloom in June. They may, if closely pruned after the first big crop, give a few scattering blooms in the late summer or early fall.



Frau Karl Druschki Roses

Set the plants 2½ feet apart to insure plenty of room. Prune each spring before growth starts; the amount to cut back depends upon the habit of the plant. More vigorous plants should be less severely cut back than the weaker ones; the harder they are cut the more wood they make.

Price, 60 cts. each, \$6 per doz.

**American Beauty.** A dark pink, very full and fragrant variety which used to be very popular as a florists' cut-flower and has been reasonably good outdoors in certain localities.

**Frau Karl Druschki.** An immense, pure white, perfectly double Rose, sometimes nearly 6 inches in diameter, abundantly produced in June. If cut back after the first crop, it will bloom all summer, contrary to the general habit of this class. Second in the twelve "Favored Roses of all America" referendum of the American Rose Society in 1923.

**General Jacqueminot.** The long-time favorite "Jack" Rose. The fragrant, perfectly formed, brilliant scarlet-crimson blossoms come early, on long stems, and in great abundance.

**Georg Arends.** Sometimes called "Pink Druschki." Large full, very fragrant, soft light pink blooms; better as a fall bloomer than most Hybrid Perpetuals.

**Mrs. John Laing.** Immense, full, delightfully fragrant, very beautiful soft pink flowers, borne profusely by a low, sturdy plant.

**Soleil d'Or.** Beautiful, long-pointed yellow buds, opening to very large, full, orange-yellow flowers that vary to ruddy gold. Prune lightly.

### Plants by Parcel Post.

If plants are to be shipped by parcel post, add to the prices given, 10 cts. for 1 plant, 20 cts. for 6 plants, 30 cts. for 12 plants.

## CLIMBING ROSES

Present-day Climbing Roses are destined to make Rose-growing universal. Every one here listed is a strong grower, will endure neglect, bloom profusely, and after the June bloom-burst the foliage is attractive all summer. They may be used to cover porches, pillars, trellises and fences, unsightly objects, such as banks along farm-lanes, stone-piles, and ledges. Many other situations will suggest themselves to you as you study your own places. Can you picture anything more beautiful than the fence along the road festooned in June with beautiful Roses?

These hardy climbers need but little attention except pruning once a year, which is immediately after the flowering period is over. At such time very old or undesirable wood is removed. New wood will replace it and these new growths can be stopped anywhere by pinching out the tips.

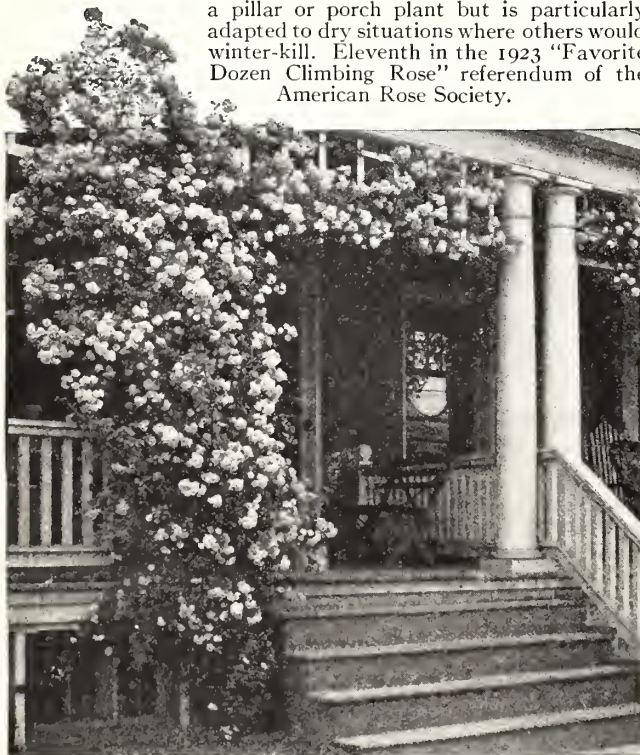
By the judicious planting of Climbing Roses you can, at a small expense, increase the beauty of the home-grounds.

Price, 60 cts. each, \$6 per doz., except where noted

**American Pillar.** A glorious Rose. Large clusters of bright crimson flowers with clear white eyes, that are intensified by bunches of golden yellow stamens. Each cluster is borne on a long, strong stem. A very vigorous climber, making plenty of strong canes, with large, leathery foliage. Stands second in the 1923 "Favorite Dozen Climbing Roses" referendum of the American Rose Society.

**Climbing American Beauty.** Moderately fragrant, rich, rosy carmine, 3 to 4-inch blooms on long stems, profusely borne by a very vigorous, hardy plant. It will succeed in almost any situation once it has become established. Is sixth in the 1923 "Favorite Dozen Climbing Roses" referendum of the American Rose Society.

**Crimson Rambler.** A Japanese importation that immediately became popular. Great masses of crimson, semi-double flowers are borne by vigorous plants. Desirable as a pillar or porch plant but is particularly adapted to dry situations where others would winter-kill. Eleventh in the 1923 "Favorite Dozen Climbing Rose" referendum of the American Rose Society.



Dorothy Perkins Climbing Rose



Paul's Scarlet Climber

**Dorothy Perkins.** Clear cherry-pink, slightly fragrant flowers, borne in great profusion and lasting for a long time; they are double and the petals crinkled, which gives them a delightfully fluffy appearance. The bright glossy green foliage persists until frost. Fifth in the 1923 "Favorite Dozen Climbing Roses" referendum of the American Rose Society. 50 cts. each, \$5 per doz.

**Dr. W. Van Fleet.** The most popular climbing Rose, according to the American Rose Society's "Favorite Dozen Climbing Roses" referendum. Perfectly formed, long-pointed, deep pink buds on long stems, with several in a cluster, each expanding to about 4 inches. A vigorous grower with abundant, dark green, glossy, disease-resistant foliage that delights the eye all summer. Grows 20 feet or more high; bears hundreds of delicately perfumed blooms that make good cut-flowers.

**Paul's Scarlet Climber.** The purest red of all the pillar Roses. Clusters of semi-double, vivid scarlet flowers shaded crimson, that retain their color till they fall, never turning blue. The color is intensified by the numerous yellow stamens. Fourth in the 1923 "Favorite Dozen Climbing Roses" referendum of the American Rose Society. Not a very tall climber but hardy and floriferous. 75 cts. each, \$7.50 per doz.

**Seven Sisters** (Greville). An old-fashioned climber which is a form of the Roxburgh Rose, and is still sought after by people who want old things. It was very popular at one time. The flowers are produced in large clusters once each season. They are double, usually purplish-pink, but vary from bud to open flower through many shades of white, pink, and red. Growth is very coarse and tall, reaching 18 feet or more.

**Silver Moon.** A wonderful Rose. Immense, semi-double, pure white blooms 4 inches across, intensified by golden yellow stamens, are borne on long, stiff stems. Very strong-growing plants covered with rich, dark green foliage and a profusion of bloom. Third in the 1923 "Favorite Dozen Climbing Roses" referendum of the American Rose Society. Without doubt the most unusual and best white climbing Rose.

**Tausendschon.** A most distinctive and valuable Rose. The cherry-pink buds open to very double flowers of softer shades that eventually fade to white, and all shades are found in a single cluster. The glossy, light green, disease-resistant foliage and almost thornless stems make a desirable wall-covering. Seventh in the 1923 "Favorite Dozen Climbing Roses" referendum of the American Rose Society.

**Yellow Rambler.** Beautiful, small, golden yellow buds, developing to full, double, primrose blooms with a golden center and a delightful fragrance. The vigorous plants bloom profusely.

**Plants by Parcel Post.** If plants are to be shipped by parcel post, add to prices given, 10 cts. for 1 plant, 20 cts. for 6 plants, 30 cts. for 12 plants.

## PEONIES

Peonies are among the most gorgeous plants that can be grown in a garden. Given a deep, rich soil and a sunny situation they will thrive anywhere. A mulch of manure each fall will help to maintain them. Plant the roots 2 to 3 inches below the surface of the ground. The following are very desirable varieties. They are strong divisions with 3 to 5 eyes, and plenty of roots, and are of more generous size than usually secured from the growers.

Price, 60 cts. each, \$6 per doz., postpaid

**Charlemagne.** Large, globular, rose to lilac-white blooms, with slight blush center; fragrant. Late.

**Comte de Diesbach.** Medium-sized, compact bomb-shaped, fragrant, magenta blooms. Midseason.

**Delache.** One of the best of its type. Large, rosy magenta, rose type blooms. Midseason to late.

**Edulis Superba.** Large, loose, dark pink, crown type blooms. An extra-good variety for marketing. Early.

**Festiva Maxima.** Very large, pure white, globular type flowers; center petals sometimes flecked crimson. A vigorous grower and abundant bloomer. The most popular white for cut-flowers.

**Fragrans.** Medium-sized, dark pink, bomb-type blooms, with silvery reflex; fragrant. Late.

**Francois Ortegat.** Very striking, semi-double, purplish crimson blooms with brilliant golden anthers.

**Grandiflora Rosea.** Light rose; outer petals very large, inner smaller and bunched. A vigorous grower.

**Louis Van Houtte.** Very brilliant, deep carmine-rose blooms, tipped with silver and a fiery reflex; medium size; fragrant. Late.

**Nigricans.** Semi-rose, globular blooms of very deep rich, dark crimson. Particularly good for landscaping, also for cutting. Midseason to late.

**Officinalis Rosea-plena.** Soft, bright rose blooms, borne abundantly on strong plants.

**Officinalis Rubra-plena.** A very early double crimson variety, popular because of its color and abundance of bloom.

**Queen Victoria.** Medium-sized, globular crown type bloom of white petals slightly flecked and splashed with crimson; fragrant. Midseason.

**Rosea Superba.** Medium to large, pale lilac-rose blooms, center tipped cream-white. Good market bloom. Early to midseason.



## PHLOX

The Perennial Phlox is a universal favorite and one of the most showy of the garden plants. Each stem grows 2 to 3 feet high, according to variety, and is crowned with large trusses of blooms of varied colors—red, purple, white, salmon, and parti-colored.

The Phlox thrives in a cool, moist, but well-drained fertile loam. It blooms in early summer, but can be delayed until late summer or fall when flowers are most needed in the garden, by pinching out the tops of the growing shoots. These are strong, 2-year-old plants that will give satisfactory growth and bloom the same year they are planted; they should not be compared with the small 2-inch pot plants which do not give an abundance of bloom the first year. The following varieties are highly recommended.

Price, 20 cts. each, \$2 per doz., postpaid



**Bridesmaid.** Tall, white flowers with rosy crimson eye.

**Champs-Elysees.** Bright rosy magenta blooms in large trusses.

**Elizabeth Campbell.** Very large trusses of a distinct light salmon, shading pink on the centers of the blooms.

**Fernand Cortez.** Deep crimson.

**Lassburg.** Immense pure white panicles.

**Miss Lingard.** Pure white flowers with pale pink centers in very large, long trusses, sometimes 1½ feet long. The earliest white; fine for massing for landscape effects.

**Mrs. Charles Dorr.** A beautiful shade of lavender.

**Richard Wallace.** White with large carmine eye.

**R. P. Struthers.** Cherry-red, suffused salmon.

**Sunset.** Dark rosy pink.

## FLOWERING SHRUBS

There is not a farm nor suburban home but what can be greatly improved by the use of a few good flowering shrubs. There are no hard and fast rules to follow when beautifying the home-grounds, other than that vistas or views should be retained or made—not spoiled or shut out by a misplaced tree or shrub. Irregular groups or masses of shrubs should surround the buildings and follow the fences or outline the yard with an open space for lawn.

Flowering shrubs thrive on any land that will grow corn or potatoes. No diseases nor insects of any great importance infest them, so they seldom need spraying. Fertilizing once a year with some commercial fertilizer, or well-decayed stable manure, and pruning are all they require. Pruning, however, is an important piece of work, for the year's crop of flowers can be quickly lost by pruning at the wrong time. All of the shrubs offered in this list, with the exception of the *Althæa*, *Hydrangea*, *Peegee*, and *Spiræa*, *Anthony Waterer*, are pruned in the summer immediately after flowering.

**Plants by Parcel Post.** Add to the prices given, 10 cts. for 1 plant, 20 cts. for 6 plants, 30 cts. for 12 plants.



*Azalea amoena*

**ALTHÆA.** Rose of Sharon. A very useful shrub with large, single or double flowers in great profusion in late summer, a time when flowering shrubs are scarce.

**Pink, Purple, Red, or White** varieties. 2 to 3 ft., 50 cts. each, \$5 per doz.

**AZALEAS.** These hardy Azaleas bloom with the utmost freedom, becoming solid masses of flowers at their season, and continue in splendor for several weeks. The plants enjoy a slight shade and rather sourish soil. A position sheltered from severe winter winds is advisable. Plants 10 to 12 inches high, with roots, balled and burlapped, \$3 each.



Beauty Bush

*Azaleas, continued*

**Amœna.** Brilliant reddish purple flowers completely cover every twig. A very showy and hardy sort.

**Benigiri.** A much darker crimson than above and slightly larger flowers.

**Hinodegiri.** A sparkling red variation of *Amœna*, with no trace of the purple.

**Hinomayo.** Exquisite light shell-pink, generally considered the finest and purest of all in color.



Snowberry. See page 55

**BEAUTY BUSH.** An exceedingly handsome ornamental shrub which has come to us from the wildernesses of China and Central Asia. The foliage and habit are attractive when the bush is out of flower and it is perfectly hardy. It grows 6 to 9 feet high when mature, and as much through, erect and twiggy, producing long, arching branches covered in spring with clusters of small, tubular flowers of the honeysuckle type, borne in such profusion that the bush is one cloud of delicate pink. Beauty Bush has all the merits of a perfect shrub—hardiness, year-round beauty in foliage and habit and amazing profusion of flowers of beautiful color. 1½ to 2 ft., \$1.50 each.

**DEUTZIA gracilis.** Slender *Deutzia*. A small shrub with slender, often arching branches covered with pure white flowers in graceful nodding racemes. Good for edging borders. 1 to 1½ ft., 60 cts. each, \$6 per doz.

**Pride of Rochester.** A very popular blush-white form, growing taller and bushier than the former. 2 to 3 ft., 60 cts. each, \$6 per doz.

**DOGWOOD, Coral** (*Cornus alba sibirica*). An upright shrub having bright coral-red branches with dark green leaves, pale beneath, and creamy white flowers in numerous flat-topped clusters, followed by bluish fruits. 2 to 3 ft., 50 cts. each, \$5 per doz.

**Cherry, Variegated Cornelian** (*C. mas elegantissima*). One of the finest variegated shrubs and a rapid grower. The leaves are broadly margined with white, and some are entirely white. 1½ to 2 ft., 75 cts. each, \$7.50 per doz.



Japanese Snowball. See page 55



Hydrangea arborescens sterilis



Mock Orange, Virginal



**FORSYTHIA.** Golden Bell. One of the very earliest shrubs to bloom and unsurpassed in splendor and brilliancy by other spring-flowering varieties. The tall, arching branches are covered with golden yellow blooms in April. Good as single specimens or as a hedge. 2 to 3 ft., 50 cts. each, \$5 per doz.

**HONEYSUCKLE, Red Tartarian** (*Lonicera tatarica siberica*). A bushy shrub, reaching 10 feet, with crimson flowers in June, followed by red fruits. 2 to 3 ft., 60 cts. each, \$6 per doz.

**White Tartarian** (*L. tatarica alba*). About the same as the above except that the flowers are white. 2 to 3 ft., 60 cts. each, \$6 per doz.

**HYDRANGEA paniculata grandiflora.** Big conical trusses of white flowers that soon assume rose and bronze tones, are borne in late summer and last till frost. Severe pruning in early spring brings big trusses of bloom. 2 to 3 ft., 65 cts. each, \$6.50 per doz.

**arborescens sterilis.** Becomes a good-sized shrub to which the name "Hills of Snow" may well be applied. Its sterile flowers, borne in great masses, practically cover the shrub. Very showy and useful. 2 to 3 ft., 65 cts. each, \$6.50 per doz.

**INDIAN CURRANT** (*Symphoricarpos vulgaris*). Tall, slender shrub, with coral-red fruits. 2 to 3 ft., 35 cts. each, \$3.50 per doz.

**JAPAN QUINCE** (*Cydonia japonica*). Often called "Fire Bush." Scarlet and vivid pink flowers. Very early. 2 to 3 ft., 60 cts. each, \$6 per doz.

**LILAC** (*Syringa*). A great favorite in old gardens. Many a Lilac bush cherished by some hardy pioneer woman is all that remains to mark an old homestead. Late in May the bush is crowned with many purple or white spikes of fragrant flowers.

**Purple.** 2 to 3 ft., 60c. each, \$6 per doz.

**White.** 2 to 3 ft., 60c. each, \$6 per doz.

**MOCK ORANGE, Sweet** (*Philadelphus coronarius*). An upright shrub, 8 feet high, with arching branches that bear, in June, a wealth of pure white, very fragrant flowers in clusters. Each flower is about an inch across with clusters of golden yellow stamens. 2 to 3 ft., 50 cts. each, \$5 per doz.

**Golden** (*P. coronarius aureus*). An attractive golden-leaved form of the preceding. 1½ to 2 ft., 65 cts. each, \$6.50 per doz.

**Virginal.** A vigorous, tall grower, with very large, double-crested flowers having round petals. They are pure white, sweetly scented, and borne in clusters. One of the most beautiful varieties. 2 to 3 ft., 75 cts. each, \$7.50 per doz.

**SNOWBERRY** (*Symphoricarpos racemosus*). Small, rose-colored flowers in June and July, followed by large clusters of pearly white fruit which endures into the winter. 2 to 3 ft., 50 cts. each, \$5 per doz.

**SNOWBALL** (*Viburnum opulus sterile*).

The old-fashioned Snowball. A large shrub with white, ball-like clusters of flowers in May and June. Very decorative. 2 to 3 ft., 75 cts. each, \$7.50 per doz.

**Japan** (*V. tomentosum plicatum*). A rare and beautiful species from Japan. Large, globular, pure white flowers in May and June. The fall coloring of the foliage is especially fine. 1½ to 2 ft., \$1 each, \$10 per doz.

**SPIRÆA, Anthony Waterer.** Bright rosy crimson flowers in dense corymbs produced abundantly from July till frost. Fine for facing plantings of larger shrubs or edging walks. 1 to 1½ ft., 40 cts. each, \$4 per doz.

**Van Houttei.** One of the most beautiful spring-blooming shrubs. The arching branches bend to the ground under the immense number of corymbs of small white flowers. 2 to 3 ft., 35 cts. each, \$3.50 per doz.

**WEIGELA, Eva Rathke.** An upright shrub 5 to 6 feet high, with arching branches covered in late May with an abundance of slightly fragrant, rich reddish purple, trumpet-shaped flowers 1½ inches long and 1 inch in diameter. 1½ to 2 ft., 65 cts. each, \$6.50 per doz.

**rosea.** The Weigela of our grandmothers. An attractive shrub with spreading branches covered with beautiful dark green foliage and a wealth of trumpet-shaped, slightly fragrant, rose-colored flowers. 2 to 3 ft., 50 cts. each, \$5 per doz.

**Variegated.** An exceedingly pretty variety with finely variegated foliage which lasts the entire season and is very distinct. Rose-colored flowers in June. 1½ to 2 ft., 50 cts. each, \$5 per doz.



Red Tartarian Honeysuckle

**Plants by Parcel Post.**

Add to the prices given, 10 cts. for 1 plant, 20 cts. for 6 plants, 30 cts. for 12 plants.

## HEDGE PLANTS

Hedges or living fences make the most artistic boundaries for the farm, to mark the line between highway and farm, to define the driveways or enclose the home-grounds. They add much to the value of the place. Once planted they require little attention. These are strong, thrifty, attractively shaped plants that will make desirable specimens on your lawn.

**BOXWOOD** (*Buxus*), *arborescens*. Excellent for specimen shrubs or dignified hedging. Evergreen and hardy. 12 to 15-in. plants, \$2.25 each.

**CALIFORNIA PRIVET** (*Ligustrum ovalifolium*). The most popular hedge plant. A rapid grower with dark green foliage that persists until early winter. May be pruned to any shape. Unpruned, it assumes an upright, spreading habit, about 10 feet tall. 12 to 18-in. plants, \$1 for 25, \$3.50 per 100, \$16.25 for 500; 2 to 3-ft. plants, \$2 for 25, \$7.50 per 100.

**JAPANESE BARBERRY** (*Berberis Thunbergi*). Compact-growing, much-branched low shrub whose many spines deter animals from breaking through. Its red berries persist until spring. 12 to 18-in. plants, \$1.50 for 10, \$6.50 for 50, \$12 per 100.

**RED-LEAVED BARBERRY** (*Berberis Thunbergi Atropurpurea*). Exactly like the well-known Japanese Barberry except that the foliage is rich crimson, becoming brilliant scarlet when the sun falls on it. A wholly new and most spectacular plant which is creating a tremendous furore. New this year and will undoubtedly be one of the most popular plants for lawn and garden hedge work. 12 to 15-in. plants, 65 cts. each, \$6.50 per doz.



Hedge of Japanese Barberry

## VINES

Well-placed vines make a wonderful addition to the looks of the home or garden. By softening the sharp corners of the buildings and porches, they add a charm not otherwise obtainable. Vine-draped trees and pergolas have a peculiarly appealing grace not easily described, and some of the vines are particularly valuable in covering banks. The following are highly desirable vines. They are all strong, 2-year-old No. 1, field-grown plants, with good root systems.

**BOSTON IVY** (*Ampelopsis*), *Veitchi*. High-climbing, clinging, deciduous vine with lustrous, three-pointed leaves 2 to 4 inches across. Autumnal coloring crimson-scarlet. The best climbing vine for covering houses, walls, etc., in this vicinity. 50 cts. each, \$5 per doz.

**CINNAMON VINE**. A long-lived, vigorous climber with broad heart-shaped leaves and clusters of white, cinnamon-scented flowers. Dies down to the ground each winter but comes up again very quickly in the spring. 10 cts. each, \$1 per doz., \$7 per 100. If wanted by mail, add 8 cts. per doz. extra.

**CLEMATIS Jackmani**. Large, flat, 5 to 6-inch, velvety purple flowers, usually in threes, freely produced and are highly prized because of their beauty and splendor. Train them over porches or on fences. \$1 each, \$10 per doz.

**paniculata**. Sweet Autumn Clematis. In August or September the plants are densely covered with fragrant white flowers, followed by seeds, each of which has a grayish, fuzzy plume which gives the plant the appearance of being in bloom until winter comes. Produces dense shade all summer; train them over porches or summer-houses. 35 cts. each, \$3.50 per doz.

**Mme. Edouard Andre**. Large flowers of bright carmine-violet. Unusual and distinct. \$1 each, \$10 per doz.

**DUTCHMAN'S PIPE** (*Aristolochia*), *sipho*. A fast-growing vine for covering porches, pergolas, etc. The 6 to 15-inch broadly reniform leaves cast a dense shade. Peculiar pipe-like flowers. 2 to 3-ft. plants, \$1 each, \$10 per doz.

**HONEYSUCKLE** (*Lonicera*), *Halliana*. Dark green foliage, with attractive, sweetly scented flowers, produced from July to frost. Desirable for trailing over fences, arbors, and as a ground-cover for banks; weeds will not grow through it. 35 cts. each, \$3.50 per doz.

**MADEIRA VINE**. A rapid-growing climber which will quickly cover porch trellises, arbors, stumps, etc. Foliage light green; flowers white, small and feathery; sometimes called "Climbing Mignonette"; delightfully fragrant. Plant the roots in May. Give light protection during winter.

**Large Roots**. 10 cts. each, \$1 per doz., \$7 per 100. If wanted by mail, add 8 cts. per doz. extra.

**WISTERIA sinensis**. Handsome, showy, pea-like flowers in large grape-like clusters. Well adapted for training on porches, arbors, trellises, or trees. They require a deep rich soil but the great profusion of bloom well repays one for the trouble of supplying it. Strong, 2-year, grafted plants; sure to bloom.

**Purple**. Long, pendulous clusters of pale blue flowers. \$1 each, \$10 per doz.

**White**. Like the above, except pure white flowers. \$1 each, \$10 per doz.



Hall's Honeysuckle

## STRAWBERRY PLANTS

**Strawberries in the Garden.** No home-garden is complete without a bed or a few rows of Strawberries. This earliest and most delicious fruit, coming at a time when no other fresh fruit can be had, is liked by everybody. By planting some everbearers in addition to the early varieties, you can have fresh berries for the table from June to November, or until freezing weather sets in. What greater pleasure than picking your daily supply of fresh ripe berries "right off your own vines"?

**Strawberries for Profit.** We know of no other crop that produces equal returns for the acreage planted or the time and labor expended. Market-gardeners and farmers are beginning to appreciate the enormous and ever-increasing demand for fancy home-grown berries and are limiting their acreage only to the amount they are able to take care of at picking-time.

**Our Plants.** The plants we offer are "new-ground plants" grown in virgin soil in one of the best plant-growing districts of the Northwest. They are large, strong, fully developed plants, ready to make a quick, steady growth the first year.

**Order Early.** The earlier you order the surer you are to get the varieties you want. Strawberry plants should be set out as early in spring as the ground can be prepared, the earlier the better. The plants will be sent as soon as they can be dug in the spring and if your ground is not ready, heel them in and cover with straw until you plant them.

### Distance for Planting and Plants Required per Acre

|   |               |
|---|---------------|
| Commercial use. $3\frac{3}{4}$ ft. x $1\frac{1}{2}$ ft.....           | 7,920 plants  |
| Garden use. $2\frac{1}{2}$ ft. x $1\frac{1}{2}$ ft.....               | 11,600 plants |
| Everbearing Strawberries. $2\frac{1}{2}$ ft. x $1\frac{1}{2}$ ft..... | 11,600 plants |

### Extra-Early

**Premier.** The best early Strawberry without a fault. Excellent in quality, color and flavor. Its unusual firmness makes it an ideal shipper. The best early commercial berry today.

### Second-Early

**Cooper.** The largest Strawberry ever produced. Ripens with second earlys. Plants large and vigorous. Berry has a sweet, delicious flavor. A new variety

Aroma Strawberry

that built its reputation in one year.

**Senator Dunlap.** For many years has been grown as the main-crop berry throughout the country. Will produce a full crop in a wider range of soil and climate than any other variety. A very heavy bearer of good-sized, uniformly shaped berries of beautiful dark red color.

**Dr. Burrill.** This is truly a most remarkable Strawberry—one of the best all-round varieties ever produced. It is really in a class by itself, for in size, flavor, and color, combined with its sturdy root system and heavy crown, it has few equals and no superiors. The Dr. Burrill fruits from midseason until late and is a ready seller on the market. As a dry-weather producer it cannot be beat, the long roots taking moisture from a greater soil-depth and producing heavier foliage and crops than most varieties under similar dry-season conditions.

### Medium Late

**Gibson.** Produces two to four fruit-stems on each plant, making it one of the heaviest bearing Strawberries. Fruit of fine quality, texture, and flavor. Excellent for table use, canning, or market. Possesses an exceptionally fine flavor. Thrives in all soils and climates. We highly recommend this variety.

### Very Late

**Aroma.** Widely grown throughout the country as the standard late variety. A sure cropper. Produces quantities of large berries, uniformly round in shape, and deep glossy red in color, having a tough skin and firm flesh, making it an ideal shipper. Unusually mild and sweet and the standard late variety.

**Pearl.** A new Strawberry, and latest known. A first-quality berry in point of flavor, size, and color of fruit, vigor and hardiness of plant.

### Everbearing

**Mastodon.** Very productive; unusually large size; brilliant, attractive color; and excellent shipping qualities. Produces fruit ninety days from planting. Pick the first crop from July to killing frosts; the second crop the following June; and the third crop from August to killing frosts in late autumn.

**Champion.** Has won enthusiastic praise of home and commercial growers everywhere. Its vigor and hardiness are truly remarkable—the quantity and quality of fruit unexcelled. A heavy bearer of berries of good size and shape, dark red, and fine flavored. Bears fruit constantly from midsummer until killing frosts in late autumn.

**Progressive.** An old favorite everbearing kind. Very similar in appearance and quality to Champion, but not so prolific.

### PRICES

|                                   | Per 25 | Per 50 | Per 100 | Per 1,000 |
|-----------------------------------|--------|--------|---------|-----------|
| Premier. Extra early.....         | \$0 40 | \$0 70 | \$1 10  | \$6 00    |
| Cooper. Second early.....         | 50     | 90     | 1 50    | 9 00      |
| Senator Dunlap. Second early..... | 30     | 50     | 90      | 5 00      |
| Dr. Burrill. Second early.....    | 35     | 60     | 1 00    | 6 00      |
| Gibson. Medium late.....          | 30     | 50     | 90      | 5 00      |
| Aroma. Very late.....             | 45     | 80     | 1 35    | 8 00      |
| Pearl. Very late.....             | 50     | 90     | 1 50    | 9 00      |
| Champion. Everbearing.....        | 75     | 1 20   | 2 00    | 11 00     |
| Progressive. Everbearing.....     | 75     | 1 20   | 2 00    | 11 00     |
| Mastodon. Everbearing.....        | 1 10   | 2 00   | 3 00    | 20 00     |

Orders for 500 or more of one variety will be furnished at the 1,000 rate

### PLANTS BY PARCEL POST

Add to the above prices for postage as follows: 25 plants 10 cts.; 50 plants 15 cts.; 100 plants 25 cts.; over 100 plants, 25 cts. for each 100.

Unless postage is included in remittance, plants will be sent by express, charges collect. On orders for 500 plants and upward we recommend express shipment.



Mastodon Strawberry

## Hardy Flowering Perennials

No yard or garden is complete without a bed or border of hardy perennials. They are the most satisfactory of garden plants. If set in good garden loam they require only a little attention, for which the grower is repaid with an abundance of attractive flowers each year. Their variety is so great that by making a selection these will bloom from spring to cold weather.

Price, 25 cts. each, \$2.50 per doz., postpaid, except as noted

**ANEMONE japonica.** Japanese Anemone. Tall, stately plants, blooming from early fall to frost.

**Queen Charlotte.** Semi-double; pink. Whirlwind. White; semi-double.

**AQUILEGIA, Long-spurred Hybrids.** Charming color tones. Hardly any two alike.

**BLEEDING-HEART (Dicentra), spectabilis.** Long racemes of quaintly shaped pink flowers. 65 cts. each.

**BUTTERFLY BUSH (Buddleia), magnifica.** Large deep rose-purple flowers in dense spikes. Mid-August on. 35c. each, \$3.50 per doz.

**CHRYSANTHEMUMS, Hardy.** Bloom after other flowers are gone.

**Alice Howell.** Orange-yellow.

**Autumn Glow.** Rosy crimson.

**Donald.** Light pink.

**Fireball.** Yellow, tipped crimson.

**Glory of Seven Oaks.** Yellow.

**Julia.** Orange-scarlet.

**L'Argenteuilais.** Chestnut.

**Oconto.** White.

**Old Homestead.** Soft pink.

**Triomphe d'Or.** Golden yellow.

**CANTERBURY BELLS (Campanula), medium.** Bell-like flowers in blue, pink, and white, profusely borne.

**DELPHINIUM.** Larkspur.

**Belladonna.** Clear turquoise-blue flowers from June to frost.

**Bellamosa.** Dark blue form of above.

**Gold Medal Hybrids.** Very long spikes of the very finest colors.

**FOXGLOVE (Digitalis).** Dignified spires with long purple blooms.

**HIBISCUS.** Marsh Mallows. Strong, almost shrubby plants with gigantic flowers of red, white, and pink.

**HOLLYHOCKS, Assorted Colors.** Bold, spire-like stalks of bloom.

**IRIS, German.** Superb varieties of this popular garden plant. One of the easiest spring flowers grown.

**Japanese.** White, gold, or blue flowers. 35 cts. each, 85 cts. for 3, \$3 per doz.

**RED-HOT POKER (Tritoma Pfitzeri).** Spikes of orange-scarlet flowers.

**SHASTA DAISY.** Blooms 4 to 5 inches across; pure white with yellow center.

**SWEET WILLIAM (Dianthus barbatus).** Rich vari-colored flowers in large heads in early summer.

**YUCCA filamentosa.** 5-foot flower-stalk crowded with large, creamy blooms.



Gold Medal Hybrid Delphiniums

## Fruit Department

Why not use fruit trees instead of shade trees for the front lawn? They cast a good shade, especially the apple tree, and in the spring they are covered with a wealth of bloom that no shade tree can equal. In addition, they produce fruit of which but few persons have enough. In making the selection of fruits to offer our customers, we believe the following will give the best results in the districts where they live. All fruit trees offered are No. 1 grade and are f.o.b. cars, Pittsburgh, Pa. Orders for Fruit Trees should be placed before March 15.

### Apples

Two-year-old budded trees, 60 cts. each, \$5 for 10

**Baldwin.** Best all-round winter Apple in northern counties.

**Delicious.** The finest dessert Apple imaginable; midwinter.

**Duchess of Oldenburg.** Tart; midsummer.

**Grimes Golden.** Delicious flavor all its own; early winter.

**Jonathan.** Beautiful red spicy-flavored fruits; early winter.

**McIntosh.** Spicy; bright red; late fall sort.

**Northern Spy.** Desirable winter sort for northern counties.

**Rambo.** Well-flavored, juicy fruits; fall.

**Red Astrachan.** Best summer dessert and cooking Apple.

**Rome Beauty.** Handsome fruits of good quality; midwinter.

**Stark.** Attractive; red-cheeked; mildly acid; late

**Stayman.** Juicy, melting flesh; midwinter.

**Wealthy.** High quality, early fall sort.

**Winter Banana.** Lemon-yellow fruit with bright red cheek.

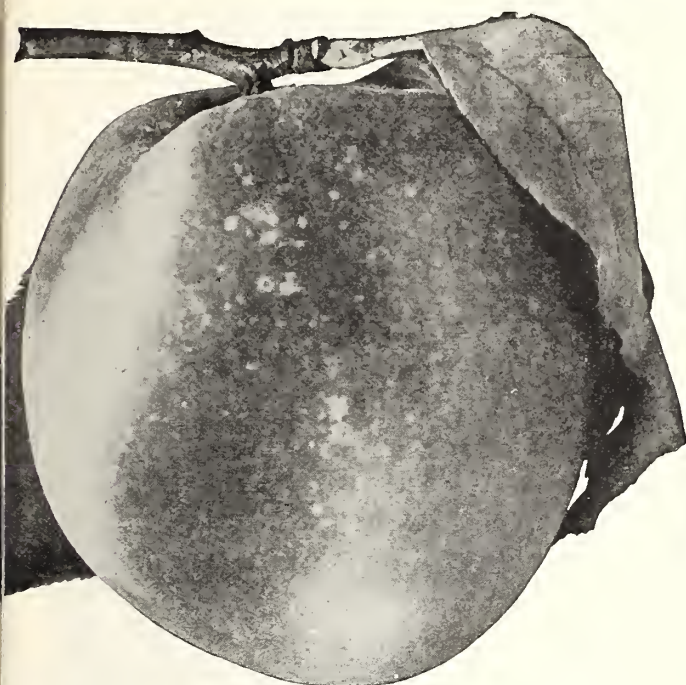
**Winesap.** Dark red, juicy, high quality winter Apple.

**Yellow Transparent.** Earliest ripening Apple; good cooker.

**York Imperial.** A wonderful keeping, fair-flavored variety.



Winesap Apples



Elberta Peach

## Pears

Two-year-old budded trees, 75 cts. each, \$6.50 for 10

- Bartlett.** Without doubt the best dessert and canning Pear.  
**Clapp's Favorite.** Superb large yellow fruits; early.  
**Duchesse d'Angouleme.** Big, rich-flavored fruits; late.  
**Kieffer.** A fine culinary Pear; keeps well in storage.  
**Seckel.** Small, delicious fruits; extremely popular.

## Peaches

Two-year-old budded trees, 40 cts. each, \$3.50 for 10

- Champion.** Deliciously flavored white Peach following Carman.  
**Crawford Early.** Yellow and of unexcelled quality.  
**Crawford Late.** A fine yellow Peach of finest flavor.  
**Crosby.** Very high quality white fruit; late August.  
**Elberta.** The standard yellow; large, highly flavored, juicy fruits in early September.  
**J. H. Hale.** Big yellow fruits of high quality; late August.  
**Lemon Free.** The hardiest Peach; will stand more frost than others; high quality; fine for canning.  
**Rochester.** A very hardy early yellow of high quality.

## Plums

Two-year-old budded trees, 65 cts. each, \$5.50 for 10

- Bradshaw.** Fine, large, early, juicy Plum; early August.  
**Fellenberg.** Delicious, juicy flesh; fine for drying.  
**German Prune.** High-quality fruits; stands more frost than others; late August.  
**Green Gage.** Large, greenish fruits, fine for canning.  
**Lombard.** Handsome reddish fruits with pleasant, juicy flesh.  
**Shropshire Damson.** Like Damson but larger, fine for butter.  
**York State Prune.** One of the largest and best quality Plums.

## Quinces

Two-year-old budded trees, 90 cts. each, \$8 for 10

- Champion.** Large, late-ripening sort of high quality.  
**Orange.** A mighty fine-quality variety and extremely popular.

## Sweet Cherries

Two-year-old budded trees, 90 cts. each, \$8 for 10

- Black Tartarian.** Fine old fruitful sort; black fruits; late.  
**Governor Wood.** A fine home sort; russet yellow.  
**Napoleon.** Prolific; yellow with red cheeks; midseason.  
**Windsor.** Large, liver-colored; hangs long time; very late.

## Sour Cherries

Two-year-old budded trees, 65 cts. each, \$5.50 for 10

- Early Richmond.** Popular early fruit; good cooker.  
**Montmorency.** The best sour Cherry; heavy crops; midseason.  
**English Morello.** Dark red; rich fruits; very late.

## Currants

Two-year-old plants, 25 cts. each, \$2.25 for 10

- Fay.** Medium to long clusters of dark red, juicy fruits.  
**Perfection.** Large, bright red fruits; big clusters.  
**Wilder.** Medium-sized, mildly acid berries in large clusters.

## Gooseberries

Two-year-old plants

- Downing.** Whitish green. The most widely planted and highly-prized sort. 25 cts. each, \$2 for 10.  
**Red Jacket.** Reddish green; juicy, highly palatable flesh. 30 cts. each, \$2.50 for 10.

## Grapes

Two-year-old plants, 20 cts. each, \$1.75 for 10, except as noted

- Brighton.** Large bunches; big red berries of excellent flavor; productive and vigorous. 35 cts. each, \$3 for 10.  
**Catawba.** Luscious dark red berries; best table quality; late ripening and keeps well.  
**Concord.** The standard Grape. Rich, sweet, juicy fruits; most reliable. 15 cts. each, \$1.25 for 10.  
**Delaware.** Small, sweet, spicy, delicious berries; compact growth, taking up very little room. 35 cts. each, \$3 for 10.  
**Moore's Early.** Like Concord, but two weeks earlier. 35 cts. each, \$3 for 10.  
**Niagara.** An extremely fine, sweet, white Grape.  
**Worden.** Large bunches of big, black berries of high quality. Earlier than Concord.



Bartlett Pears

# FIELD SEEDS

The Grains and Grass Seeds we offer are selected with special reference to their purity and germination, and great care is used to have them free from noxious foreign seeds. We handle the very best seeds the market affords, regardless of price.

The Pennsylvania Seed Law requires that every package of field seeds offered for sale, weighing ten pounds or more, shall bear a label or tag giving the percentage of purity, the percentage of weed seeds, the names and number of noxious weed seeds per ounce, and the percentage of germination with the date of test.

Every farmer should write the Pennsylvania Department of Agriculture, Harrisburg, Pa., for a copy of this law, and insist on this information when purchasing seeds.

## Prices

Owing to the frequent changes in the prices of Field Seeds and Grains, we cannot, in fairness to our customers or ourselves, name prices in our catalogue. Catalogue prices are largely guess-work, and we prefer to have our customers ask us for prices when they are ready to buy, specifying the quantities of the different seeds wanted.

With the prices we will send samples, with purity and germination tests.

## CLOVERS

**MEDIUM RED.** More widely known than any other variety of Clover. Makes a standard Clover for hay purposes, as it can be cut at least twice in the season. Plants grow about 2 feet in height. Sow the seed in the early spring or late summer at the rate of fifteen to twenty pounds to an acre. If used with other seeds, ten pounds to an acre will be sufficient.

**MAMMOTH RED.** Sometimes called Sapling or English Clover. It is much ranker than the Medium Clover, and yields a much larger crop per acre. It does well on poor soil, is hardy, and usually will stay in the ground longer than Medium Clover. Seed cannot be distinguished from that of Medium Red by its appearance.



Alfalfa Clover



Sweet Clover

**ALFALFA.** One of the most nutritious plants grown; valuable as a dried hay or for pasture. With proper cultivation it can be grown on some part of almost any farm in Pennsylvania or adjoining states. Two or three cuttings can be made in a season, producing from three to five tons of hay per acre. Ton for ton its feed value equals that of wheat bran. From twelve to fifteen pounds of seed are usually sown to the acre. Some growers sow only 10 pounds to the acre. We sell but one grade of Alfalfa seed, the very best northwestern American-grown; also Genuine Certified Grimm.

**ALSIKE.** One of the best for sowing with Timothy. The seed may be sown in spring, late summer or early autumn, and as the plants are perfectly hardy, the field seldom requires re-seeding. The flowers resemble White Clover, but have a red tinge on the edge of the petals and are considerably larger. Thrives better on thin soils than Red Clover.

**CRIMSON.** This Clover is used principally for turning under as a green fertilizer, or for sowing with corn for a winter cover-crop. If desired for feed, the plants should be cut just before they come into bloom. Seed may be sown any time after the first of April at the rate of twenty pounds to the acre. Plants are strictly annual, therefore the field must be reseeded every year. Thrives on poor land and increases fertility of the soil.

**SWEET.** Also known as Bokhara or Melilotus. This is a legume whose value as a soil improver is just beginning to be appreciated. It is also used for forage, but on account of its taste, the cattle take to it very slowly. It can be grown on soil that is too poor to grow other legumes, and it is claimed the bacteria on its roots will inoculate Alfalfa. It may be sown either in the spring or fall. Although a great number of different species are grown in the Old World, we only recommend for this climate the White Blossom Biennial (*Melilotus alba*).

**WHITE.** White Clover is specially valuable for lawn planting and is likewise good for pasturage. When sown with Lawn Grass it helps to make a permanent turf; in the pasture it is not quickly destroyed by hoofs of cattle and horses. Seed can be sown any time during the summer, although best results are obtained from early spring sowing. It is perfectly hardy and very thrifty. Use from ten to twelve pounds to the acre if sown alone; about five pounds to the acre if sown on old sod or with other Clover.

Inoculate all Clover seeds with Stimugerm. See page 74

## TIMOTHY

A description of this old familiar hay-making grass is unnecessary here. It is recognized by almost everyone wherever found, and is probably the most extensively grown of all the grasses. It may be sown alone or with Red or Alsike Clover, or with other grasses. From twelve to fifteen pounds of seed are usually sown to the acre.

## FIELD CORN

We have always made a specialty of Seed Corn, supplying our trade with only those varieties that experience has proved are most suitable for the climate of Pennsylvania, Ohio, and West Virginia. Our Seed Corn is carefully hand-picked and tipped and butted before it is shelled. We aim to have every variety true to name and of high germination.

**PENNSYLVANIA SURE-CROP.** The tremendous quantity of shell Corn this variety produces to the acre surprises everyone who grows it. Generally there are two good ears to a stalk. The grain is very long, longer than any other, and the cob very thin. Sure-Crop has a rich, deep yellow grain, making it much desired by millers. The fodder grows from 8 to 10 feet high. It is an early Corn, ripening in 90 to 100 days.

**PRIDE OF THE NORTH.** A Yellow Dent variety, maturing in 90 days. Ears 8 to 10 inches long, sixteen rows on the ear, cob small, grain above medium size and closely set. One of the hardiest, and especially adapted to the northern planter; will mature farther north than any other Dent Corn.

**PATTON'S IMPROVED LEAMING.** The original seed of Patton's Improved Leaming Corn was purchased of J. S. Leaming, of southern Ohio over forty years ago and has been grown on the Patton Farm in Lawrence County, Pa., every year since the first planting. It has become well acclimated in western Pennsylvania. It matures in from 90 to 100 days. It produces a good-sized ear, with deep broad grains, which contain a large germ and shoots out a large vigorous sprout, that makes a strong, quick growth at the start. This is the secret of a good crop of Corn. A good start is half of the battle in raising a Corn crop. Patton's Improved Leaming grows a strong root and very leafy fodder, making it one of the best varieties for silage. The seed is kiln-dried and guaranteed. In a good season, Patton's Improved Leaming has yielded as high as 75 bushels of shelled Corn per acre.

**WHITE-CAP YELLOW DENT.** An early sort which grows well on light soil; grain is yellow with white tip. Nearly as early as Pride of the North, maturing in from 90 to 95 days. Ears from 8 to 10 inches long, well filled, with sixteen or eighteen rows.

**REID'S YELLOW DENT.** This variety has won many prizes in Corn shows in various parts of the country. It originated in Illinois and soon became extremely popular. The cob is medium large, with good-sized, deep grain. Matures in from 100 to 110 days.

**BLOODY BUTCHER.** A deep cherry-red Corn with white cap, maturing in about 90 days. Has long, slender ears, generally fourteen rows and a small cob.

## ENSILAGE CORN

**SWEEPSTAKES PEDIGREE.** This is not a variety, but a high-class hybrid sold under this trade name. It produces from 15 to 20 tons per acre of the highest quality ensilage. Crops of 25 to 35 tons of well-developed ears and stalks, grown from plantings made from May 25 to June 12, have been reported to the producers for the past eight years in many states. It also makes high quality Corn for cribbing, and 180 to 240 bushels of ears of husked Corn have been produced several times. Do not plant more than 1 bushel of seed on 3 acres; better to do it on 4 acres. Plant rows not less than 3½ feet apart, and drill kernels 10 to 16 inches apart in the row.

**EUREKA.** (Virginia-grown.) The Eureka is a Virginia-bred Corn and originated about twenty years ago on the rich bottom of the James River Valley where it grows to perfection, often attaining a height of 16 to 18 feet. It is a vigorous grower, large stalks, with unusually heavy foliage, and produces from one to three ears to the stalk, according to the land. The ears average about 11 inches in length. Will produce more tons of ensilage to the acre than any other variety.

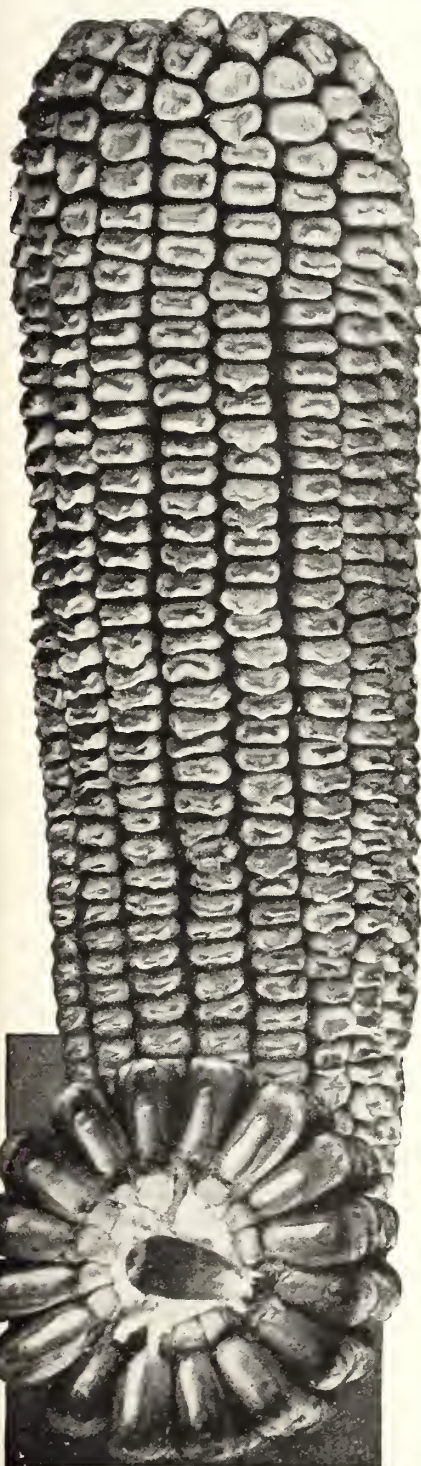
**BLUE MOUNTAIN.** This Corn is grown at a high altitude in the Blue Ridge Mountains in Virginia, and makes an ideal ensilage Corn. Grows to a mammoth size, full of leaves, and has a big ear. It is a vigorous growing Corn, often knee-high after 30 days from planting, and grows 14 to 16 feet high. Our seed is selected in the fall, properly taken care of, and always shows nearly a perfect germination test.

**LANCASTER COUNTY SURE-CROP.** Lancaster County Sure-Crop holds first place in the estimation of many leading farmers. It is a yellow Corn, ears are very long and not proportionately thick. It grows quite tall, is very leafy and develops ears early. Some farmers claim that for husking purposes it is just as valuable a variety as it is for ensilage.

**VIRGINIA HORSE-TOOTH.** The popular fodder Corn of the Southern States; from 12 to 14 feet high, and stiff enough to stand up during severe storms. The seed is white, broad, and deep, with white cob.

**RED-COB.** A tall-growing plant, with a quantity of side leaves, making it desirable for ensilage. A favorite with a great many growers. The grain is narrow and clear white.

Our aim has always been to furnish High-Quality Seeds  
rather than to sell inferior seeds at low prices.



Pennsylvania Sure-Crop Corn

Write us for special prices and samples of Field Seeds and Grains. Specify quantities wanted

## GRASS SEEDS

**BLUE GRASS.** Kentucky Blue Grass is most valuable for pastures and lawn planting. For lawns it is indispensable and, when well established, the lawn will last for years, as the Grass makes an extra-close fine-textured turf. The seed should be mixed with other Grasses that mature earlier, for Blue Grass is very slow in both germinating and maturing.

**ORCHARD GRASS.** A quick-maturing Grass that is used for pasture and hay. It may be cut several times during the year, but it is advisable to use the machine before the plants show the seed-heads. From thirty to thirty-five pounds will be required for an acre.

**RED-TOP.** A valuable Grass for hay, pasture or lawn. It will grow on any soil that is not extremely dry. With the possible exception of Kentucky Blue Grass, it surpasses all other Grasses for lawn-making, and is an extra-good variety for golf-grounds and other places where the turf must withstand hard usage. About fifteen to twenty pounds of seed will be required for an acre. We handle nothing but the solid recleaned seed, having discarded the unhulled and chaff grades.

**WOOD MEADOW GRASS.** Will grow in shady places where practically no other Grass will succeed, and therefore is particularly desirable for shaded lawns. It is also desirable for mixing with golf-link Grasses, as it makes a compact turf. About thirty-five pounds of seed for an acre.

**CRESTED DOG'S-TAIL.** A low-growing Grass that makes extra-dense turf in rich, moist soils; is also desirable for putting-greens and lawns. Will grow equally well in the shade or the sun. About seventy pounds of seed will be required for an acre.

**CREeping BENT.** A superior Grass for putting-greens on account of its dwarf growth and its narrow leaves. It will grow and make good turf in good or bad soils, and dry weather or heavy rains seem to have no serious effects. About forty pounds of seed are required for an acre.

**PERENNIAL or ENGLISH RYE GRASS.** Where a rapid growth is desired, this is the Grass to sow, as it will make a reasonably good showing when three or four weeks old. It is extensively used in lawn seed mixtures. About seventy pounds of seed will be required for an acre.

## FESCUES

### HARD, RED, SHEEP'S, and CHEWING'S

The above are principally used in special golf and lawn mixtures for use where unusual conditions of soil prevail. They are all adapted to poor land and stand the extremes of heat and cold better than most other grasses. From 30 to 40 pounds of seed are required for an acre.

## PERMANENT PASTURE

On account of the great variation of soils and conditions, a fixed formula for a permanent pasture is not feasible in all cases. We, however, recommend the following as the mixture that will produce the best all round results:

### SEED FOR 1 ACRE

|                             |                          |
|-----------------------------|--------------------------|
| 12 lbs. Kentucky Blue Grass | 6 lbs. Medium Red Clover |
| 3 lbs. Recleaned Red Top    | 3 lbs. Alsike Clover     |
| 6 lbs. Timothy              | 1 lb. White Clover       |

Where there are steep, shaley, or thin soil knobs or ridges, about 8 pounds of Orchard Grass should be added to the above.

Pasture Mixtures have been, in the past, a very convenient method of getting rid of low-grade seeds, and we prefer to sell the straight seeds and let the purchaser do the mixing. He knows then just what he is getting and what the mixture contains.

See page 44 for price and description of Lawn Grass Mixtures

## MISCELLANEOUS FARM SEEDS

**SOY BEANS.** A valuable plant for bringing nitrogen into the soil. It is also excellent for green or dried fodder, and the seed is very rich in protein, making an excellent dairy feed when balanced with other grains. Seed should be sown during the months of May or June, using at least one bushel to the acre, when sown broadcast, or when sown in drills, 2½ feet apart, about three pecks to the acre. We handle two varieties—**Wilson and Mammoth Yellow.** The Wilson is a well-known variety in Pennsylvania for an early hay crop. It has fine stems, produces abundant foliage, and is also suitable for silage. The Mammoth Yellow will hardly ever mature seed in the North, and is usually planted for turning under.



Soy Beans

**COWPEAS.** One of the best soil-enrichers, taking the nitrogen from the air and storing it in the soil; valuable also for hay, forage, ensilage or turning under. They should be sown in this latitude in May or June, using, when sown broadcast, one and one-half to two bushels to the acre. Many different varieties are grown in the United States, but the most suitable for sowing in the North are the **Whippoorwill** and **New Era.**

**Mixed Varieties.** This mixture consists of a half-dozen or more of the leading varieties, and is usually sown for hay, pasture, or turning under. They are almost sure to make a heavy growth.

**CANADA FIELD PEAS.** A crop of great value and increasing in popularity every year. Used for hay and pasture as well as soil-improvement. Canada Field Peas should be sown as early as possible in the spring, either alone or with oats. When sown broadcast alone, at least two bushels of seed to the acre should be used, or with oats, one and one-half bushels of Peas and one bushel of oats.

**DWARF ESSEX RAPE.** Especially valuable for feeding sheep, hogs and cattle. Claimed to have a feed value greater than clover. Always used as a pasture and not for hay. Its growth is similar to turnip-tops, but heavier and taller. If seed is sown in May the field should be ready for pasture in July. However, seed may be sown either in early spring, summer or fall. If sown in drills, about five pounds of seed will be required for an acre; if sown broadcast, ten pounds to the acre.

Write us for special prices and samples of Field Seeds and Grains. Specify quantities wanted



Harvesting Alfalfa

### MISCELLANEOUS FARM SEEDS, continued

**WINTER or HAIRY VETCH.** One of the best legumes, whether used for a hay crop, pasture, soil-improvement or cover-crop. Thrives on light soils and is very hardy, remaining green throughout the winter. May be sown in the spring or fall, using from sixty to seventy pounds of seed to the acre when sown alone. It is better, however, to furnish a support for the Vetch by sowing rye, barley or oats with it at the rate of one-half bushel of grain and fifty pounds of Vetch to the acre.

**MILLET.** A medium-early forage plant which will grow in almost any climate or soil and produces heavy yields of fodder. The crop should be cut while the plants are in bloom, or at least before the seed forms. Seed may be sown during the month of May or the early part of June at the rate of from thirty to forty pounds to the acre.

**BUCKWHEAT.** **Japanese** and **Silver Hull** are the two leading varieties. The Silver Hull produces whiter flour, but the Japanese is more productive. The Silver Hull grows particularly well on poor soil and matures a little later than the Japanese. Seed required, one to one and one-half bushels to the acre.

**SORGHUM or AMBER CANE.** Used principally as a summer fodder for cattle. Plants will grow rapidly and at least two crops can be cut each season. If carefully cured it will make an excellent dry fodder. The seed may be sown in drills about 30 inches apart, at the rate of five to six pounds of seed for an acre. If sown broadcast, from seventy-five to one hundred pounds of seed are generally used.

**SPELTZ.** Resembles wheat but the grain is much larger. Very productive and makes a fine feed for stock whether it is cut green or allowed to ripen and the grain ground. The grain is particularly good for hog- and poultry-feed.

**BARLEY.** We have the Oderbrucker variety. It is a stiff-strawed, six-rowed, bearded Barley, the heaviest yielder that has been introduced, both in grain and straw. Two bushels of seed will be required for an acre.

**SUDAN GRASS.** This was introduced into the United States in 1909 from Africa. It is thought to be the wild original form of our cultivated sorghum. It is strictly an annual and dies each year like millet. It grows from 5 to 9 feet high, has great drought-resisting qualities, and is recommended as a substitute for millet, for a catch-crop. Once started, it will grow vigorously without rain. To secure best results, it should be planted in rows wide enough to permit of cultivation. If sown in rows, 4 to 6 pounds of seed per acre is recommended or broadcast 16 to 24 pounds per acre.

**WINTER WHEAT.** We can supply the leading sorts of Winter Wheat. Our stock usually consists of **Leaps Prolific**, **Pennsylvania 44**, **Forward**, and **Klondyke**. Write us for samples and prices before seeding time.

**SPRING WHEAT.** If your winter wheat happens to be killed by extreme cold weather, you can still secure a crop by sowing Spring Wheat in early spring. **Marquis** is the leading variety sown in Pennsylvania.

**WINTER RYE.** Usually sown as a cover-crop, getting the seed into the ground before the middle of November. About one and one-half bushels of seed will be required for an acre.

**SPRING RYE.** Matures early in the season and makes an excellent green food when cut, or will supply pasturage for several weeks. Spring Rye is quite distinct from the winter sorts, as the seeds are much smaller.

## OATS

**Victory.** This variety was bred by Prof. Nilsson Svalof, of Sweden, who is recognized as one of the greatest seed-breeders in the world. It has been grown in western Canada for about ten years, also in parts of the western states for the past four or five years. It is a branching or tree Oat with a white characteristic gloss to the hull, which is fairly thin, showing only 27 per cent. The straw is medium fine, but very strong. It ripens early and is an enormous yielder. Victory Oat combines quality of grain with yield, strength of straw, and adaptability to a wide range of conditions. The Oat has a characteristic glossy appearance in most cases and a quite noticeable "flaxy" feel. The straw is fairly fine and makes excellent feed, at the same time is very strong, and stands a great deal of bad weather before lodging.

**STORM KING.** A side Oats that has been grown successfully for some years. It derives its name, Storm King, from the strength of the straw, which often measures from 4½ to 5½ feet in height. It will stand the most severe winds without lodging. Heads long, containing an unusually large number of grains; yields from 70 to 100 bushels to the acre.

**SWEDISH SELECT.** This variety is too well known to require a lengthy description here. The quality of the grain is unsurpassed. Very thick kernel and thin shuck. Does not have a long beard like common Oats. The straw grows to a medium height, is very stiff, and consequently seldom lodges. It has proved to be a wonderful yielder.

Write us for special prices and samples of Field Seeds and Grains. Specify quantities wanted

# Good Fertilizer pays big profits

1250 lbs. of E. Frank Coe's Fertilizer ("AA QUALITY") Grew Better Rhubarb than 24 Tons of Manure.

USE good fertilizer. It pays. Note the experience of Meyer Brothers, of McKee's Rocks. Conrad Meyer says that with 1250 pounds of E. Frank Coe's Fertilizer ("AA QUALITY"), he grew better rhubarb than with 24 tons of manure. Here is his letter:

"We applied 1250 pounds of your E. Frank Coe's Fertilizer on a half acre of rhubarb and had the best rhubarb we have ever raised. In past years we used at least 24 tons of manure on the same plot, but the rhubarb grown with your Fertilizer had heavier stems and was more productive. We also used your E. Frank Coe's Fertilizer on our beans. Our yield was 10 per cent better than average and we received an average of \$2 per bushel for our bean crop, a high price. From our results the past three years we recommend the use of "AA QUALITY" Fertilizers in preference to manure."

Users of E. Frank Coe's Fertilizers obtain more profit from every dollar spent for fertilizer. Take another farmer's word for it—the positive statement of H. B. Nolte, Coraopolis, Allegheny Co., who writes:

"We have been using E. Frank Coe Fertilizer ("AA QUALITY") for the past three years. Prior to that time we depended entirely on manure. From the use of your Fertilizer we find that we get healthier stock, earlier maturity and better prices. We had our peppers on the market two weeks before the average crop and received \$4 a bushel for them, which was \$1.50 per bushel above the later market price."

Maybe you are specially interested in lettuce. If so, there is all the more significance in this letter from Charles G. Utz, of Coraopolis, Allegheny Co.:

"For the past 35 years we have always depended on manure to give us best results. Now we find your "AA QUALITY"



(Above) 1250 pounds of E. Frank Coe Fertilizer ("AA QUALITY") grew better rhubarb for Meyer Bros., McKee's Rocks, Pa., than 24 tons of manure.

(Right) Peppers grown with "AA QUALITY" brought \$1.50 per bushel above average price for Nolte Bros., Coraopolis, Pa.



Fertilizer gives best results. We have never before been able to raise matured head lettuce for the Fall market. This year we used "AA QUALITY" Fertilizer on our lettuce and the heads have been heavier and matured earlier. There is no doubt our success has been due to "AA QUALITY" Fertilizer. We used your E. Frank Coe's brand on our other vegetables with the same good results."

You owe it to yourself to try E. Frank Coe's Fertilizers ("AA QUALITY"). For more than 70 years these Fertilizers have been the standard for all soil and crop conditions in this section and elsewhere. Remember, there is a grade specially formulated to meet every western Pennsylvania requirement.

You, too, can get bigger profits from your crops. Try E. Frank Coe's Fertilizers. Our Service Department will gladly recommend the most suitable grade for your soil.

Write for our useful books on the fertilization of any crops you are interested in.



(Above) Another picture of Mr. Nolte showing quality of egg plants grown with E. Frank Coe Fertilizer ("AA QUALITY"). Nolte Bros. say "AA QUALITY" gives them bigger and better matured produce that brings them better prices.



Look for the "AA QUALITY" seal on the back of every bag. It is the guarantee of the world's largest fertilizer manufacturer—a pledge of dependable quality that never varies.

## E. FRANK COE'S FERTILIZERS ("AA QUALITY")

Manufactured only by THE AMERICAN AGRICULTURAL CHEMICAL COMPANY, 129 Lewis Street, Buffalo, N. Y.

### Special Prices on Fertilizers

On orders for ton and half-ton lots for shipment on arrival of cars in February and March, a reduction of \$2 per ton will be allowed. Orders must be in by March 15, to secure this special reduction.

This reduction also applies to Sheep Manure on next page.

### E. Frank Coe's Red Brand Fertilizer

A high-grade Fertilizer for Truckers. (4-8-7.)

| GUARANTEED ANALYSIS            |  | Per cent |
|--------------------------------|--|----------|
| Nitrogen .....                 |  | 3.29     |
| Equal to Ammonia.....          |  | 4.00     |
| Available Phosphoric Acid..... |  | 8.00     |
| Potash (Water soluble).....    |  | 7.00     |

In 125-lb. bags

|                    |                      |
|--------------------|----------------------|
| 125 lbs.....\$3 65 | 1,000 lbs....\$23 50 |
| 500 lbs.....12 25  | 2,000 lbs.... 44 50  |

### E. Frank Coe's Gold Brand Fertilizer

For market-gardeners. (3-10-6.)

| GUARANTEED ANALYSIS            |  | Per cent |
|--------------------------------|--|----------|
| Nitrogen .....                 |  | 2.47     |
| Equal to Ammonia.....          |  | 3.00     |
| Available Phosphoric Acid..... |  | 10.00    |
| Potash (Water soluble).....    |  | 6.00     |

In 125-lb. bags

|                    |                      |
|--------------------|----------------------|
| 125 lbs.....\$3 50 | 1,000 lbs....\$22 00 |
| 500 lbs.....11 50  | 2,000 lbs.... 42 00  |

### E. Frank Coe's Columbian Fertilizer

For corn and potatoes. (2-8-5.)

| GUARANTEED ANALYSIS            |  | Per cent |
|--------------------------------|--|----------|
| Nitrogen .....                 |  | 1.65     |
| Equal to Ammonia.....          |  | 2.00     |
| Available Phosphoric Acid..... |  | 8.00     |
| Potash (Water soluble).....    |  | 5.00     |

In 125-lb. bags

|                    |                      |
|--------------------|----------------------|
| 125 lbs.....\$3 25 | 1,000 lbs....\$19 50 |
| 500 lbs.....10 25  | 2,000 lbs.... 36 50  |

### E. Frank Coe's Antler Fertilizer

For wheat, rye, and oats. (1-9-4.)

| GUARANTEED ANALYSIS            |  | Per cent |
|--------------------------------|--|----------|
| Nitrogen .....                 |  | 0.82     |
| Equal to Ammonia.....          |  | 1.00     |
| Available Phosphoric Acid..... |  | 9.00     |
| Potash (Water soluble).....    |  | 4.00     |

In 125-lb. bags

|                    |                      |
|--------------------|----------------------|
| 125 lbs.....\$3 00 | 1,000 lbs....\$17 50 |
| 500 lbs.....9 25   | 2,000 lbs.... 33 00  |

### E. Frank Coe's 16 Per Cent Superphosphate

Sixteen per cent available phosphoric acid. Very quick-acting and permanent.

In 125-lb. bags

|                    |                      |
|--------------------|----------------------|
| 125 lbs.....\$2 50 | 1,000 lbs....\$13 75 |
| 500 lbs.....7 50   | 2,000 lbs.... 25 50  |

### Lawn and Garden Bone-Meal

Pure; ground very fine. Especially adapted for lawns, gardens, and green-houses.

| GUARANTEED ANALYSIS          |  | Per cent |
|------------------------------|--|----------|
| Nitrogen .....               |  | 2.47     |
| Equal to Ammonia.....        |  | 3.00     |
| Total Phosphoric Acid .....  |  | 22.88    |
| Bone Phosphate of Lime ..... |  | 50.00    |

Postpaid

|                  |        |
|------------------|--------|
| 4 lbs.....\$0 25 | \$0 40 |
| 9 lbs.....50     | 70     |
| 25 lbs.....1 25  | 1 65   |
| 50 lbs.....2 00  | 2 65   |

In 100-lb. bags

|                    |                      |
|--------------------|----------------------|
| 100 lbs.....\$3 50 | 1,000 lbs....\$29 00 |
| 500 lbs.....15 00  | 2,000 lbs.... 56 00  |

### Nitrate of Soda

Fifteen per cent nitrogen, equivalent to over 18 per cent ammonia. 1 lb. 15 cts., 5 lbs. 60 cts., 10 lbs. \$1, 100 lbs. \$4.50.

In 167-lb. bags

|                    |                      |
|--------------------|----------------------|
| 167 lbs.....\$6 75 | 1,000 lbs....\$36 50 |
| 500 lbs.....18 75  | 2,000 lbs.... 71 00  |

### Arcadian Sulphate of Ammonia

A nitrogenous fertilizer for the lawn, home-garden, shrubs and house plants. Unequaled as the spring application for stimulating early, vigorous plant-growth. Its use on the lawn will bring about a soil condition favorable to the growth of the grass and will produce a reaction in the soil which is unfavorable to weeds. A highly concentrated plant-food. 10 lbs. are sufficient for 2,500 square feet of lawn or garden.

|                 | Postpaid      |
|-----------------|---------------|
| 2-lb. box.....  | \$0 40 \$0 50 |
| 5-lb. bag.....  | 1 00 1 15     |
| 10-lb. bag..... | 1 75 2 00     |
| 25-lbs.....     | 3 50 3 90     |

### A. A. C. Sulphate of Ammonia

In 200-lb. bags

|                    |                      |
|--------------------|----------------------|
| 100 lbs.....\$5 00 | 1,000 lbs....\$38 00 |
| 600 lbs.....23 40  | 2,000 lbs.... 74 00  |

### Muriate of Potash

Imported, guaranteed 48 per cent K<sub>2</sub>O. 1 lb. 15 cts., ppd. 25 cts.; 5 lbs. 60 cts., ppd. 75 cts.; 10 lbs. \$1, ppd. \$1.20; 100 lbs. \$4.00

In 200-lb. bags

|                    |                      |
|--------------------|----------------------|
| 200 lbs.....\$6 80 | 1,000 lbs....\$30 50 |
| 600 lbs.....18 90  | 2,000 lbs.... 59 00  |

### Unleached Hardwood Ashes

A proper and liberal use of good Hardwood Ashes will restore worn-out lands to prime fertility, preserve grass lands through severe drought, and give trees, plants and vines renewed vigor. 1 bbl. (250 lbs.) \$4.25; 4 bbls. (1,000 lbs.) \$15; 8 bbls. (2,000 lbs.) \$28. Special prices on carload lots.

### Agricultural Gypsum

Agricultural Gypsum (land plaster) is an untreated, ground, natural rock fertilizer, consisting mainly of hydrated calcium sulphate. It therefore bears two essential plant foods, calcium and sulphur.

Gypsum furnishes sulphur to crops in an immediately available and neutral form—in exactly the form that sulphur is supplied to plants in nature.

#### Uses for Agricultural Gypsum

**Lawns**—to promote luxuriant growth and rich color.

**Peas, Beans, Peanuts, and other Legumes**—to furnish an essential plant-food.

**Cabbages, Turnips, Radishes, and Onions**—to form their characteristic flavors.

**Tobacco, Tomatoes and Potatoes**—to furnish a required plant-food and release potash in the soil; also to prevent potato scab.

**Poultry-Houses**—to render them more sanitary by sprinkling agricultural gypsum on dropping-boards and floors.

**Barn-Manure**—to trap the ammonia of the manure by sprinkling agricultural gypsum about the stalls, in the drains, and on the manure-piles.

**Dust Sprays**—to serve as a carrier of insecticides, such as paris green, calcium arsenate, etc.

Amount of Agricultural Gypsum to apply as a plant-food, 200 to 400 pounds an acre; for potato scab control, 800 to 1,000 pounds an acre.

Put up in 80-lb. paper bags

|                   |                    |
|-------------------|--------------------|
| 10 lbs.....\$0 25 | 480 lbs....\$5 25  |
| 25 lbs.....50     | 960 lbs.... 9 50   |
| 80 lbs.....1 00   | 2,000 lbs....18 00 |

Ask for booklet "How and Why of Gypsum."

### Hydrated Lime

Prepared especially for gardens, lawns, flower-beds, greenhouses and kindred uses, besides all the various other purposes for which Lime is essential. Besides sweetening the soil, Lime is a wonderful physical corrective, tending to break up a heavy clay earth, and, on the other hand, to bind together a soil containing a large amount of sand.

Made from a high-calcium limestone, which is burnt in a kiln, ground to the proper fineness, put through a process of hydration, screened and packed in 50-pound sacks. As it is not a hot Lime, it is not disagreeable to handle, and entirely safe to store without danger of creating a fire. Can be kept indefinitely without deteriorating in quality. It is a light gray or cream color.

|                      |                    |
|----------------------|--------------------|
| 50-lb. bag....\$0 65 | 500 lbs....\$5 50  |
| 100 lbs.....1 25     | 1,000 lbs....10 00 |
|                      | 2,000 lbs. \$18    |

Ask for delivered prices in carload lots

### "Star Brand" Lime

Specially prepared for garden, lawn, sanitary, and whitewashing purposes.

|                 | Postpaid      |
|-----------------|---------------|
| 5-lb. pkg.....  | \$0 25 \$0 40 |
| 10-lb. pkg..... | 45 65         |
| 25-lb. pkg..... | 90 1 25       |

Prices on larger quantities quoted on request.



Absolutely  
Weedless.

# Makes All Plants Grow!

Wizard is a natural concentrated manure that produces big crops and makes all plants grow to perfection. It is free from straw and rubbish, with all weed seeds killed. This natural fertilizer makes hard, worn-out soils rich and fertile. It supplies the humus and natural plant-food that puts new life and beauty into all plants.

Everybody can get wonderful results with Wizard because it is easy to apply and will not burn plants. It is most economical—one big 100-pound bag equals a whole wagon-load of stable manure.



Wizard makes beautiful lawns and gardens

**LAWNS.** Wizard produces a thick, velvety green lawn of lasting beauty. In making new lawns, broadcast 10 pounds to 100 square feet and rake into the surface soil. On old lawns use 6 to 10 pounds per 100 square feet. Use Wizard this spring and watch the new beauty it will develop.

**FLOWERS AND SHRUBS.** Luxuriant green foliage and a wealth of vivid-colored flowers quickly follow the use of Wizard. Fine for vines, shrubs, and trees. Mix well with the soil under new plantings and cultivate into the surface soil around established plants.

**VEGETABLE, FRUIT, AND FIELD CROPS.** Every successful gardener knows that nothing equals manure for producing big crops of crisp, tender vegetables. Wizard also improves yield, color, and flavor of fruits. It drills freely and is a practical soil-building fertilizer for field crops. Use 500 to 1,000 pounds per acre.

**FLORISTS.** Wizard is unexcelled for feeding plants grown under glass. It is weedless; safe and dependable for all plants. It pays to use Wizard if you want big crops of high quality.



Wizard makes big crops

## ASK FOR CIRCULAR

|             |     | Postpaid       |     |         |                     |
|-------------|-----|----------------|-----|---------|---------------------|
|             | \$0 | 15             | \$0 | 25      |                     |
| 2 lbs.....  |     | 15             |     | 25      | 50 lbs.....\$1 50   |
| 5 lbs.....  |     | 25             |     | 40      | 100 lbs.....2 50    |
| 10 lbs..... |     | 45             |     | 65      | 500 lbs.....11 00   |
| 25 lbs..... |     | 90             |     | 1 25    | 1,000 lbs.....21 00 |
|             |     | 2,000 lbs..... |     | \$40 00 |                     |

Wizard Brand Shredded Cattle Manure, in 100-lb. bags, same price as Sheep Manure. Prices in carload lots quoted on request

## Clean and Odorless



*and receive more  
actual plant-  
food for  
your money  
than in animal  
fertilizer*

Just sprinkle by hand, like seed, over the lawn or garden, according to directions on each package, and splendid results will follow. 25 lbs. will cover about 1,000 square feet.

### SIZES AND PRICES

|                |        | Postpaid |
|----------------|--------|----------|
| 1-lb. can...   | \$0 25 | \$0 35   |
| 5-lb. bag...   | 50     | 65       |
| 10-lb. bag...  | 85     | 1 05     |
| 25-lb. bag...  | 1 75   | 2 10     |
| 50-lb. bag...  | 3 00   |          |
| 100-lb. bag... | 5 00   |          |

**Old  
Gardener**  
HIGH GRADE-ODORLESS CONCENTRATED  
**FERTILIZER**

## Lōma

*Beautifies Lawns and Gardens*



To build up a lawn you can be proud of, use Lōma—the scientific plant-food. Lōma is rich in potash, phosphate, and nitrates—just the food elements your lawn or garden needs. Lōma promotes deep root-growth—makes the grass so sturdy it won't burn out quickly in the summer sun, so thick that it actually crowds out the weeds. Lōma is odorless, clean—many times more powerful than barnyard manures. Just sow it over the lawn like grass seed. Then wet it down. A 5-pound package fertilizes a 10 by 10-foot plot.

|             |        | Postpaid |
|-------------|--------|----------|
| 5-lb. pkg.  | \$0 50 | \$0 75   |
| 10-lb. bag  | 1 00   | 1 20     |
| 25-lb. bag  | 2 00   | 2 35     |
| 50-lb. bag  | 3 50   |          |
| 100-lb. bag | 6 00   |          |

## VIGORO

*Specially prepared plant food*

**ALL PLANT-LIFE  
MUST BE FED**

*For Lawns, Gardens, Flowers, Shrubbery, Trees*

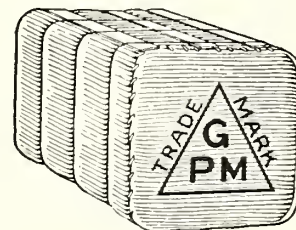
Plants, like human beings, must receive the right nourishment. Vigoro is specially prepared to supply lawns, gardens, flowers, shrubbery, and trees with all of the plant-food elements needed for rapid, sturdy, and luxuriant growth.

Vigoro is clean, odorless, and easy to apply. It can be sown by hand, like grass seed.

Start right this year by using hardy, disease-free seeds and Vigoro. Your success in gardening will be assured. Complete directions in every bag.

|             |        | Postpaid |
|-------------|--------|----------|
| 5-lb. pkg.  | \$0 50 | \$0 65   |
| 25-lb. bag  | 1 75   | 2 10     |
| 50-lb. bag  | 3 00   |          |
| 100-lb. bag | 5 00   |          |

IMPORTED GRANULATED  
**PEAT MOSS**  
TORF MULL



## A Clean, Odorless, Disease-Free Substitute for Manure

**Free from Weed Seed. Entirely Unlike Any Domestic Product**

A great soil-improver. No matter how much chemical fertilizer may be applied, plants will not thrive in soil unless it contains an abundance of organic matter or humus.

This material is light and dry, vegetation which has been decomposing for years. Its use is a quick way to add humus to the soil. Makes heavy soil light, friable, giving better drainage. Makes light soil more retentive of moisture. Supplies nitrogen to plants throughout the growing season and increases the action of necessary, beneficial soil bacteria. Turn under liberal quantities.

Useful for mulching in the flower and vegetable-garden. Invaluable for Rhododendrons, Kalmias, Ferns, Evergreens, Blueberries. For lawns, sprinkle over the lawn several times during the season, giving a heavy coating for winter. The perfect mulch for roses. Used and recommended by leading rosarians.

Peat Moss is extensively used by leading florists, also for mixing with potting soil, for propagating benches, for covering greenhouse benches in place of sand or ashes, packing bulbs and plants.

Trial bales, for small gardens, house plants, etc., sufficient to cover 16 square feet, 1 inch deep, \$1.50; postpaid \$1.60.

Large, compressed bales, containing from 18 to 20 bushels loose peat moss, sufficient to cover 240 square feet 1 inch deep, \$4; 5-bale lots \$3.75 per bale. f.o.b. Pittsburgh.



A Guarantee of Quality  
This trade-mark  
on wrapper of  
genuine

## STIM-U-PLANT

AN ALL-THE-YEAR FERTILIZER FOR GARDEN AND HOUSE PLANTS

Stim-U-planT, is an odorless, highly concentrated plant-food, in tablet form, with guaranteed balanced chemical analysis of 11 per cent nitrogen, 12 per cent phosphoric acid, 15 per cent potash. The proportions are accurate, there is no unnecessary filler, and in this form you are able to apply plant-food exactly when and where and as needed.

### EASY TO USE

Simply insert tablets in soil about 3 inches from stem of plant, or dissolve in water at the rate of four tablets to the gallon and apply as liquid manure. Complete directions with every package.

Order STIM-U-PLANT tablets with your seed and plant order. Prices, postpaid: 10 tablets 15 cts., 30 tablets 25 cts., 100 tablets 75 cts., 1,000 tablets \$3.50.

## FULTON'S Plantabbs

ODORLESS PLANT FOOD TABLETS

The perfected fertilizer for house plants and all outdoor flowers.

|                    |                          |
|--------------------|--------------------------|
| No Waste.          | No Weeds.                |
| No Run-off.        | Clean, Odorless.         |
| Easy to Apply.     | Uniform Feeding.         |
| Dissolves Quickly. | Immediate Fertilization. |

Because they are perfectly balanced in nitrogen, ammonia, phosphoric acid, and potash, Plantabbs are used by many professional growers, and prize-winners in garden contests owe their success to them.

We highly recommend Plantabbs to our trade. Prices, postpaid: 30 tablets 25 cts., 65 tablets 50 cts., 150 tablets \$1, 1,000 tablets \$3.50. The larger sizes are most economical.

## ADCO

FOR MAKING ARTIFICIAL MANURE

Dry leaves, mixed with ADCO and kept moist, turn into excellent manure. So do flower-stalks, cuttings, pea-vines, and almost any other kind of non-woody vegetable waste.

ADCO is a powder which, mixed with vegetable matter and kept moist, turns the latter into **Real Manure**, but without the odor, flies, etc. The process is perfectly simple and not at all laborious. The method is being generally adopted by gardeners, who know that manure is a necessity to the soil and can no longer be obtained from stables. Farmers can use straw, corn stalks, etc., and need no longer maintain live stock.

### PRICE

25-lb. bags (enough for about twelve wheelbarrow loads of garden waste, making  $\frac{1}{2}$  ton of manure), each \$2, postpaid, \$2.35.

150-lb. bags (enough for a heap 10 x 10 x 6 feet making about three tons of manure), each, \$10.50.

Each shipment is accompanied by simple directions, which make any mistake impossible



### F. & I. Fertilizer and Insecticide

Tobacco makes an excellent combined fertilizer and insecticide because it is rich in nitrogen, phosphoric acid, potash, and nicotine. Furthermore, it is free from weed seeds, insect larvae, and unpleasant odors which manure and certain fertilizers possess.

Made from high-grade selected tobacco, especially prepared so as to give best results. F. & I. quickly stimulates healthy growth and protects plant-life against insect pests. It has a nicotine content of 1.00% and contains:

|                          |                   |
|--------------------------|-------------------|
| Nitrogen.....2.07%       | Ammonia.....2.50% |
| Phosphoric Acid......50% | Potash.....4.00%  |

Applied both by dusting over the plants or working into the soil. Cover the bench about  $\frac{1}{2}$  inch deep and work it in. Then apply another half inch for top dressing. In the field, use from 1 to  $1\frac{1}{2}$  tons per acre.

### IN 100-LB. BAGS

|                    |                       |
|--------------------|-----------------------|
| 100 lbs.....\$2 75 | 1,000 lbs.....\$23 50 |
| 500 lbs.....12 25  | 2,000 lbs.....45 00   |

## INSECTICIDES AND FUNGICIDES

The Insecticides and machines for applying the same, described in this catalogue, are not novelties in the experimental stage, but have been thoroughly tested and found reliable for the uses for which they are intended.

Customers using large quantities of Insecticides are requested to write to us for special prices, specifying the quantities wanted. Prices quoted are subject to change.

## A Still Better Pyrox

STILL EASIER TO  
USE. STILL MORE  
EFFECTIVE

Bowker's Pyrox is the last word in a scientific compound to protect plants from insects and blights. For over a quarter-century Pyrox has been known as the handiest and most efficient spray material on the market. And now, due to advanced manufacturing methods, Pyrox is even better than ever. There is simply nothing else like it.

Smooth as fine paint, always soft and plastic, Pyrox is ready for instant use. No fuss or muss. No guesswork, nor weighing and mixing different materials. Simply dip this creamy paste out of the jar or can. Add cold water. Stir. That's all. At once you have a perfect mixture that sprays, mist-like, and lays a protective film over the whole plant.

Insects, worms, and bugs simply can't live where Pyrox is sprayed. Blights, rusts, and rots can make no progress. Due to the secret process of blending the deadly poison with the powerful fungicide extra high in copper, Pyrox not only saves your plants, but improves them—makes them sturdier and stronger—lengthens the growing period—which increases the yield and enriches the quality. And because it sticks like paint frequent sprayings are unnecessary.

Use Pyrox especially for potatoes, tomatoes, cucumbers, melons, cabbages, peppers, eggplants, berries, small fruits, shrubs, and flowers.

1-lb. jar 50 cts., 5-lb. drum \$1.75, 10-lb. drum \$3, 25-lb. drum \$6.25, 50-lb. drum \$10.75, 100-lb. drum \$15.50, 300-lb. bbl. \$43.50



The postal regulations will not permit poison to be sent through the mail. Therefore insecticides containing poisons cannot be sent parcel post, and must be sent by express or freight. On non-poisonous insecticides, the postpaid prices are given in connection with the price.



### Bowker's Lime-Sulphur

Dry and Liquid

Dry Lime-Sulphur does not have the same disagreeable features as the Liquid and is now generally accepted by fruit-growers everywhere. It is used as either a dormant spray to kill scale or as a summer spray to control fungous diseases, such as scab, rot, etc. 1-lb. pkg. 40c., postpaid, 50c.; 5-lb. pkg. \$1.50, postpaid, \$1.65; 12½-lb. bag \$2, postpaid, \$2.25; 25-lb. drum \$4.50, postpaid, \$4.90; 50-lb. drum \$7.50, 100-lb. drum \$12.

**Bowker's Liquid Lime-Sulphur (concentrated)** is prepared from the highest grade of lime and the purest sulphur, combined in especially designed apparatus, and in quantities so large as to allow plenty of time for storage and settling. Thus the solution which reaches you is cherry-red in color, clear and sparkling. It will not crystallize, thicken up in the barrel, nor clog the finest nozzles. If used according to directions, Bowker's Lime-Sulphur is *guaranteed to kill every scale that it touches*. 1-qt. can 45 cts., postpaid 60 cts.; 1-gal. can 90 cts., postpaid, \$1.20; 5-gal. can \$3.25, 25-gal. bbl. \$7, 50-gal. drum \$11. Containers not returnable.

### Commercial Flour Sulphur

For use in making lime-sulphur solution and for dusting. Lb. 10 cts., 5 lbs. 40 cts., 10 lbs. 60 cts., 25 lbs. \$1.25, 50 lbs. \$2, 100 lbs. \$3.25, 500 lbs. \$15.50.



### Bowker's Powdered Arsenate of Lead

This is the result of thirty years of manufacturing this product—a longer experience than that of anyone else in the business. Bowker's can be used either as a spray or as a dust for all leaf-chewing worms and insects. It will not burn or injure your crop. Unlike ordinary brands, Bowker's mixes easily, stays well in suspension, is so finely divided that you get an even distribution, with no trouble from clogged nozzles and sticks to the foliage through heaviest rains. In choosing Bowker's you obtain unusual efficiency at no additional cost. ½-lb. pkg. 25 cts., 1-lb. pkg. 45 cts., 4-lb. pkg. \$1, 25-lb. pkg. \$5, 100-lb. pkg. \$17.50.



### Bowker's Calcide

#### High-Grade Calcium Arsenate

Bowker's Calcide is prepared under the personal supervision of G. R. Riches, who originated Calcium Arsenate. His efforts, coupled with those of the U. S. D. A. were principally responsible for the perfection of this economical and effective insecticide. Although formerly used only in the South to kill the cotton boll weevil, Calcide is fast supplanting arsenate of lead and paris green in other sections to kill such pests as potato bugs, tobacco worms, bean and melon beetles, etc. It is one-third stronger, quicker and cheaper than arsenate of lead, far safer and only one-half as expensive as paris green. Calcide may be applied either wet or dry. 1-lb. pkg. 25 cts., 4-lb. pkg. 75 cts., 25-lb. pkg. \$3.



### Bowker's Powdered Bordeaux Mixture

Bowker's Powdered Bordeaux is a powerful fungicide for the control of blights, rusts, and rots, or any crops where Bordeaux is recommended by the experiment stations or other agricultural authorities. Fine, light, and fluffy, Bowker's Bordeaux mixes easily and completely.

Hence it covers evenly and sticks well to the foliage. When bugs or worms are present, use Bowker's Pyrox in place of Bordeaux, as Bordeaux contains no poison. 1-lb. carton 35 cts., postpaid, 45 cts.; 4-lb. bag 85 cts., postpaid, \$1; 25-lb. bag \$3.75, postpaid, \$4.20; four 25-lb. bags \$13.50.

### Copper Sulphate (Blue Vitriol)

Used for making Bordeaux Mixture solution. Lb. 25 cts., 5 lbs. 90 cts., 10 lbs. \$1.50, 50 lbs. \$5, 100 lbs. \$9, 450-lb. bbl. \$36.

# Wilson's

### O. K. PLANT SPRAY

In order to have healthy, well-bearing plants, you must first rid them of the thousand and one pests that attack them—spray them in time with **Wilson's O. K. Plant Spray** and save replanting.

It kills aphid, thrip, red spider, lace-wing fly on rhododendrons, box mite, currant worms, and many other bugs that infest your plants. Wilson's O. K. Plant Spray is an all-round insecticide. It can be used in the house, flower, and vegetable-gardens or under glass. Dilute 1 part to 15 parts water.

|            | Postpaid |        | Postpaid           |
|------------|----------|--------|--------------------|
| ½ pt. .... | \$0 40   | \$0 50 | 1 gal. .... \$3 00 |
| 1 qt. .... | 1 00     | 1 15   | 5 gals. .... 12 00 |



### Derrisol

is an odorless, non-poisonous insecticide, endorsed and used by many agricultural college experiment stations, florists, orchardists, and gardeners for controlling aphids, plant-lice, thrips, leaf-hoppers, red spiders and other soft-bodied sucking insects, and it can be used for controlling some small leaf-eating larvæ, such as cabbage worms, saw-fly larvæ, and currant worms.

One part of **Derrisol** dilutes with 800 parts of water to control most insects. **Derrisol** is pleasant and safe to use, will combine with other liquid insecticides and fungicides, requires no spreader or soap.

|                    | Postpaid |        | Postpaid               |
|--------------------|----------|--------|------------------------|
| 1-oz. bottle. .... | \$0 35   | \$0 45 | 2-lb. can. .... \$3 25 |
| 8-oz. bottle. .... | 1 25     | 1 35   | \$3 45                 |
| 1-lb. can. ....    | 2 25     | 2 40   | 10-lb. can. .... 11 85 |



### Volck

#### Effective, Safe and Easy to Use

Controlling plant pests successfully demands a spray that will not only effectively control pests such as red spider, mealy bug, scale, white fly, and aphid, but at the same time be safe to use on tender plants. Safety is particularly necessary on tender greenhouse and garden plants. Volck answers these requirements and fewer applications will get results.

A pleasant Spray to handle and mixes easily with water.

Does not burn the hands or face, or eyes; does not disfigure clothing nor leave a disagreeable odor after its use. Instead, brightens the plants and gives them a healthy, handsome appearance. Is being used by many nurseries on a large range of greenhouse plants such as asters, begonias, crotons, cyclamen, evergreens, ferns, palms, poinsettias, snapdragons, etc., for this brightening and beautifying effect as much as for control of pests.

Controls mildew, aphid, red spider, and scale on roses.

|                  | Postpaid |        | Postpaid                |
|------------------|----------|--------|-------------------------|
| ½-pt. cans. .... | \$0 50   | \$0 60 | 1-gal. can. .... \$3 00 |
| 1-pt. cans. .... | 75       | 85     | \$3 30                  |
| 1-qt. cans. .... | 1 00     | 1 15   | 5-gal. can. .... 12 50  |

Special circular on request



### CYANOAS G. Fumigant

For Greenhouse — controls aphid, etc.

Ask for Greenhouse Booklet

1-lb. tins 75 cts., 5-lb. tins \$3, 25-lb. tins \$10, 100-lb. drums \$30



### CYANOAS A. Dust

For rats, mice, moles, and all other rodents and insects.

Special Booklet on request

# CYANOAS

Efficient and Economical

# SCALECIDE

## THE COMPLETE DORMANT SPRAY

# SCALECIDE

*"Makes a Tree Outgrow Its Troubles"*

### Scalecide

Since 1904, Scalecide has been famous for its effectiveness against the San José scale and all other scale insects, because it has always been a miscible oil of the highest quality. But Scalecide is not only a scale spray, it kills all other pests which winter on the tree. It is the complete dormant spray. Applied as a delayed dormant spray in the spring, diluted 1 to 15 (12 gallons to a 200-gallon spray tank), Scalecide controls aphids, European red mite, pear thrips, and red bug; diluted 1 to 12½ (15 gallons to a 200-gallon spray tank), it also controls leaf-roller. Applied in the fall (1 to 15), Scalecide controls peach leaf-curl and pear psylla. Either fall or spring spraying with Scalecide (1 to 15) controls scale, bud-moth, case-bearer, leaf-miner and fungous cankers.

### No Nicotine Required

The fact that Scalecide, applied as a delayed dormant spray, controls aphids without nicotine, means much more than the saving of cost of the nicotine; it means the control of aphids year in and year out by the simple method of spraying annually with Scalecide.



|  |  |        |        |
|--|--|--------|--------|
| 1 qt. ....   |  | \$0 75 | \$0 90 |
| 1-gal. can. ....   |  | 1 75   | 2 05   |
| 5-gal. can. ....   |  | 6 25   |        |
| 10-gal. can. ....  |  | 10 60  |        |
| 15-gal. drum \$11.50. Drum extra \$2. ....   |  | 13 50  |        |
| Cost of drum will be refunded when returned to B. G. Pratt Co., Hackensack, N. J., prepaid |  |        |        |
| 50-gal. bbl. ....  |  | 38 00  |        |

ASK FOR SCALECIDE BOOKLET

# SULFOCIDE

## A Better Summer Spray

The experienced fruit-grower does not need to be told of the need for a better summer spray. He knows that not one of the common fungicides fully meets his requirements. For instance, Bordeaux cannot be used on peaches and it may russet apples. Commercial lime-sulfur is not suitable for peaches and may have a tendency to devitalize the foliage and dwarf the fruit.

Sulfocide does not have these disadvantages and can be used on both peaches and apples. When sprayed, it quickly decomposes, leaving a film of extremely fine sulfur.

Sulfocide can be used alone or in combination with Cal-Arsenate, Kayso and Cal-Arsenate, or Kayso and Arsenate of Lead. Nicotine may also be added to any of these combinations. Do not use Sulfocide in combination with Arsenate of Lead without adding Kayso to the water in the spray-tank first. The method of procedure is to fill the spray-tank with water, put in the required amount of Kayso, then put in the Arsenate of Lead and lastly put in the Sulfocide. Use the amount of Arsenate of Lead you have found most

effective. The common usage is 4 pounds of Arsenate of Lead to a 200-gallon spray tank for apples and 3 pounds for peaches. Use the same quantity of Kayso as you do Arsenate of Lead.

Sulfocide (1 to 200) combined with Scalecide (2 to 200) makes an ideal pre-pink and pink spray for apples, to control soft-bodied insects, and to control fungous diseases at the same time. It is more economical than nicotine.

For apple scab, pear scab, brown rot of peaches and fungous diseases of fruit and vegetables, use 1 gallon of Sulfocide to 200 gallons of water. For potato blight use 1 gallon to 150 gallons of water.

| PRICES              |        |         |
|---------------------|--------|---------|
|                     | Ppd.   |         |
| 1-pint can ....     | \$0 70 | \$0 80  |
| 1-quart can ...     | 1 00   | 1 15    |
| 1-gallon can ...    | 2 75   | 3 05    |
| 5-gallon can ..     | 8 75   |         |
| 10-gallon can. .... |        | \$15 00 |
| 30-gallon bbl. .... |        | 39 00   |
| 50-gallon bbl. .... |        | 60 00   |

## Black Leaf 40

40% Nicotine

Kills  
Aphis

Black Leaf 40 is highly recommended by experiment stations and by spraying experts throughout the United States and the Dominion of Canada.

The standard contact insecticide for spraying vegetables, fruits, flowers, and plants to destroy aphids, thrips, leafhoppers, and similar "sucking" insects. Also effective for dipping purposes. Full directions with every package.

1-oz. bottle....\$0 35 | 2-lb. can...\$3 25  
 1/2-lb. can.....1 25 | 10-lb. can...11 85



## Key Brand Paris Green



For use against potato bugs, tobacco worms, etc. Strictly pure Paris Green with the maximum amount of combined arsenic and a minimum of soluble or uncombined arsenic. Reliable and effective in killing bugs with a minimum danger of burning foliage. Contains 50 per cent arsenous oxide and less than 3.5 per cent soluble in water.

1/4-lb. pkg. ....\$0 20 | 5-lb. pkg...\$2 50  
 1-lb. pkg. .... 50

## Key Brand Fish Oil Soap

For destruction of sucking insects and lice on plants and trees; also essential as a spreader of nicotine sprays. Dissolve 1 pound Fish Oil Soap in 2 quarts of hot water, then add 8 to 10 gallons of cold water and apply with watering-pot or sprayer.



1-lb. pkg. ....\$0 40 \$0 50  
 5-lb. pkg. .... 1 75 1 90

Postpaid

## Key Brand Powdered Hellebore



For the destruction of slugs, worms, caterpillars, etc. Less poisonous than Paris Green or arsenate of lead and safer to use when fruits and vegetables are nearly ripe. Apply powder just as it comes from package. Made from

white hellebore roots.

1/2-lb. box. ....\$0 30  
 1-lb. box. .... 50



Effective against cucumber and melon beetles, cabbage worms, rose slugs, aphids, leaf hoppers, and most other plant insects, including cutworms.

**Non-Poisonous**—Ever Green is harmless to man, live stock, birds and pets. Kills only insects. Eliminates washing of fruits and vegetables before marketing.

**Non-Injurious**—Won't burn or injure the tenderest crops. Can be used on celery and roses. Doesn't injure the soil in any way.

**No Deterioration**—When undiluted Ever Green retains its strength indefinitely.

**Pleasant and Easy to Use**—No continuous agitation necessary—mix it by pouring into water and stirring. No unpleasant odor. Sprayers can't get clogged, for Ever Green stays in solution.

1 1/2-oz. bottles....\$0 35 \$0 40  
 6-oz. bottles. .... 1 00 1 10  
 16-oz. bottles. .... 2 00 2 10  
 32-oz. bottles. .... 3 85 4 00  
 1-gal. bottles. .... 13 00

Postpaid

# Antrol

## The National Ant Control

DESTROYS ANTS

New method "gets" them at their source—safe, permanent, effective.



The Antrol system is adapted to any size house or garden and quickly destroys all species of sweet-eating ants. It is composed of small glass containers and a special formula of syrup. The containers are partially filled with syrup and placed about the outside edges of the house or along "ant" trails in the garden if the infestation occurs there. The ants smell the syrup, eat it and then transmit its mild poison to the queen in the nest. Soon the entire ant colony is destroyed!

The complete system should cover every 15 feet around the outside of the house or "ant" trails in the garden. Once installed permanent, effective and safe protection is insured from these annoying pests. Antrol sets containing 4 containers and 1 4-oz. bottle of syrup, \$1. Antrol extra containers, 15 cts. each; Antrol syrup, 4-oz. bottle 50 cts., pt. \$1, gal. \$4.

# Snarol

## The National Pest Control

QUICKLY KILLS GARDEN PESTS

Science provides new safe method that



does the work without fuss. Snails, cutworms, slugs, grasshoppers, sowbugs, earwigs, etc., are exterminated.

Snarol is a ready prepared meal that you simply broadcast on the ground, under the vegetation. The pests eat the meal and are quickly destroyed.

Snarol will not deteriorate from rain or sprinkling and also is non-injurious to vegetation when used according to simple directions. These features distinguish it from ordinary controls and make Snarol popular with professional gardeners and nurserymen. 1-lb. pkg. 50 cts., 3-lb. pkg. \$1, 15-lb. pkg. \$3.75. Special prices quoted on 50-lb. bags on request.

# Plantgard

FOR GARDEN PROTECTION

NEW WAY TO KILL GARDEN BUGS

Protect your flowers and vegetables this new way. Surprisingly easy! Simply sprinkle with a new kind of powder called Plantgard. Not only are bugs, worms, and insects killed, but this almost magical powder also fertilizes the ground. Plantgard is absolutely non-poisonous.

1-lb. pkg. ....\$0 35 \$0 45  
 2-lb. pkg. .... 60 75  
 5-lb. pkg. .... 1 00 1 20  
 25-lb. bag. .... 3 75 4 10

Postpaid

## Nico-Fume Liquid

A highly refined solution of free nicotine, guaranteed to contain fully 40 per cent of nicotine. Extensively used by leading florists for spraying or vaporizing in greenhouses to destroy aphids, thrips, etc. The labels contain complete directions. 1/4-lb. tin, 75 cts., 1-lb. tin \$2, 4-lb. tin \$6.25, 8-lb. tin, \$11.50.

## Nico-Fume Tobacco Paper

Consists of sheets of paper impregnated with high-strength nicotine, folded and punched, ready to hang up and burn. Guaranteed to contain not less than 20 per cent of nicotine; its original nicotine content (when manufactured) being much higher. The labels contain complete directions. 24 sheets \$1.25, 144 sheets \$5, 288 sheets \$8.75.

## Nico-Fume Tobacco Powder

Tobacco Powder impregnated with a high strength nicotine solution. Effective for fumigating in greenhouses to destroy aphids, thrips, etc. The directions and illustrations are set forth on the labels. Lb. \$1, 5 lbs. \$3.75, 10 lbs. \$6.85.

## Tobacco Dust

A specially ground Tobacco Dust, guaranteed full 1 per cent nicotine strength ground to an impalpable powder, ready to use. It is particularly useful in vegetable- and flower-gardens, in greenhouses and orchards, wherever a dusting powder is desired to destroy plant-lice and thrips. Owing to its extreme fineness it readily floats in the air, enveloping the entire shrub or tree in a dense cloud. 2-lb. bag 25 cts., postpaid 35 cts.; 100-lb. sack \$4.75.

## Tobacco Stems

Bale (about 150 lbs.) \$1.75, 3 bales \$4.80, 10 bales \$14.



## Prices of Semesan

|                  |        |
|------------------|--------|
| 2-oz. tin....    | \$0 50 |
| 1-lb. tin....    | 2 75   |
| 5-lb. tin....    | 13 00  |
| 25-lb. pail....  | 56 25  |
| 100-lb. drum.... | 220 00 |

Prices of  
Semesan Jr.

|                  |        |
|------------------|--------|
| 4-oz. tin....    | \$0 50 |
| 1-lb. tin....    | 1 75   |
| 5-lb. tin....    | 8 00   |
| 25-lb. pail....  | 31 25  |
| 100-lb. drum.... | 120 00 |

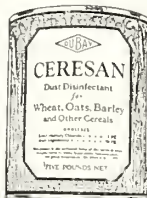
Prices of  
Semesan Bel

|                  |        |
|------------------|--------|
| 4-oz. tin....    | \$0 50 |
| 1-lb. tin....    | 1 75   |
| 5-lb. tin....    | 8 00   |
| 25-lb. pail....  | 31 25  |
| 100-lb. drum.... | 120 00 |



## Prices of Ceresan

|                  |        |
|------------------|--------|
| 8-oz. tin....    | \$0 50 |
| 1-lb. tin....    | 75     |
| 5-lb. tin....    | 3 00   |
| 25-lb. pail....  | 12 50  |
| 100-lb. drum.... | 49 00  |



Helpful booklets free on request



It is a known fact that the damage from the root maggot every year is enormous, and in some instances it has been known to have completely wiped out a crop.

Mag-o-tite is not a new product, but has been in use for a number of years and has been found by many users, both in the West and East, to be helpful in the control of root maggot on cabbage, cauliflower, kale, Brussels sprouts, broccoli, onions, radishes, turnips and rutabaga, and while primarily intended for controlling root maggot, it has also been found to be of value in controlling strawberry crown borers, cabbage worms, asparagus miners, flea beetles, and certain kinds of slugs.

Sprinkle Mag-o-tite freely in and over the drill- or seed-bed when seeding. After the plants have commenced to grow, Mag-o-tite is often sprinkled around and near them. In setting out cabbage and cauliflower plants, Mag-o-tite may be used freely alongside the plant and on the surface of the ground. In growing plants, where wilt has commenced, caused by the root maggot, it might be well to remove portion of dirt around the plant and sprinkle Mag-o-tite freely around the stems and root. Mag-o-tite can be used freely near the plants without injury and may be dusted on them.

|   |        |
|---|--------|
| 1-lb. tin.....                            | \$0 50 |
| 5-lb. tin.....                            | 1 50   |
| 25-lb. steel container, with handles..... | 5 00   |
| 50-lb. steel container, with handles..... | 9 00   |



## Semesan

Semesan is indispensable to those growing vegetables or flowers whether for market or home use. It may be applied in dust or liquid form to the seed before planting. It is harmless to the seed but deadly to any disease organisms that may be on the seed.

Semesan is such a powerful and effective disinfectant that seed treatment with it is ridiculously low in cost—from  $\frac{1}{4}$  to 1 cent per pound of seed. One ounce treats 15 pounds of seed. Effective in controlling damping off, the brown patch disease which affects golf greens, and such devastating gladiolus diseases as hard rot and scab.

## Semesan Bel

Instead of using chemicals for treating your seed potatoes, which require tedious soaking and which sometimes injure the seed-piece, use the quick, easy, time-saving Semesan Bel treatment. Simply mix, dip, drain, dry, and the potatoes are ready for planting. Semesan Bel may be used on either whole or cut seed-pieces. Does not injure sprouts. No hot water necessary. A quick dip into the Semesan Bel solution and the seed potatoes are covered with a protecting film of disinfectant which effectively controls such seed-borne disease organisms as scab, rhizoctonia, and blackleg.

By controlling these diseases, germination is generally increased, stand improved, and the resultant crop of potatoes is bigger and of better quality. Crop-increases of from 10 to 15 per cent are common. One pound treats 16 to 20 bushels of seed.

## Seed Disinfectants

Control Seed-borne Diseases—Stimulate Germination—Improve Stands—Generally Produce Increased Yields of Higher Quality.

## Semesan Jr.

Applied by the simple dusting operation at the rate of 2 ounces to each bushel of seed corn, Semesan Jr. offers the cheapest and most effective form of disease insurance.

It is especially effective in controlling seed-borne infections of diplodia, gibberella, and basiporiom, without harming the seed embryo in the least. Tests have shown Semesan Jr. to increase the yield even from disease-free seed.

Its use protects the seed from rotting in the ground and makes possible earlier planting. Improved germination, better stands, control of certain diseases, increased yields—those are the benefits which thousands of farmers are reaping, at a cost of less than 3 cents an acre.

## Ceresan

Now only one product is necessary for the seed treatment of wheat, oats, barley, rye, or sorghum, **Ceresan**. Here is an easily applied dust treatment which has proven effective in controlling such seed-borne diseases as bunt or stinking smut of wheat, stripe disease of barley, loose and covered smuts of barley and oats, and covered kernel smut of sorghum.

This is the only dust treatment which has successfully controlled all of these grain diseases as well as being the first effective dust disinfectant to be offered the farmer for control of barley stripe and smuts. Ceresan does not injure the seed. Only 2 ounces of Ceresan required per bushel of wheat, rye or sorghum and 3 ounces for barley and oats. Easy to apply; economical to use.

Stanley's Crow Repellent Protects  
Your Corn

During the period when it is most easily damaged, by ridding your crop of crows and other corn-pulling birds, and animal pests, such as moles, gophers, woodchucks, squirrels, etc.

It saves loss of seed and labor of replanting. It positively will not clog any planter. It aids and hastens germination of seed corn. It protects seed from rotting in the ground. It insures larger yield per acre. It is non-poisonous and will not injure the seed of any kind of corn. It will not kill birds or animals, but will keep them away and prevent destruction by them.

Large can, enough for 2 bushels of seed, \$1.50, postpaid \$1.65; small can, enough for 1 bushel of seed, \$1, postpaid \$1.10.

## Bourbon Garden Insecticide

is based on a formula recommended by several state experiment stations for use against the Mexican bean beetle, and is especially adapted for the control of this pest. It is also effective against potato bugs (beetles), cabbage worms, and most of the leaf-eating insects that ordinarily attack garden vegetables, vines, and bushes, and white blight or mildew on rose bushes. 12-oz. sifter-top can 35 cts.; 3-lb. can \$1.00.

## Bourbon's Fluosilicate Dust Mixture

Designed to meet the demand for an insecticide to control the Mexican bean beetle that does not contain arsenic in any form. The Fluosilicates are not considered poisonous to human beings unless eaten in large quantities, and this insecticide is therefore safer to use than preparations which contain arsenic. It is made according to an experiment station formula, and is effective against Mexican bean beetles, potato bugs (beetles), striped cucumber beetles, blister beetles, and certain flea beetles.

|                | Each   | Ppd.   |              | Each    |
|----------------|--------|--------|--------------|---------|
| Small Can..... | \$0 40 | \$0 50 | 50 lbs.....  | \$10 50 |
| 5-lbs.....     | 1 25   | 1 40   | 100 lbs..... | 20 00   |
| 25 lbs.....    | 5 50   | 5 85   |              |         |

## Key Brand Para-dichloro-benzene



For peach tree borers. When placed around the base of a peach tree, will generate a gas that will kill the borers in that tree. Use about 1 ounce per tree. Full directions on container. 1-lb. pkg. 80c., 5-lb. pkg. \$3.50.

## Key Brand Cut-worm Killer

For use as poisonous bait against cutworms and slugs by placing around plants subject to attack. It has an enticing odor that worms prefer to vegetation. One pound is sufficient for 100 plants in hills or 75 in rows. 1-lb. box 50c., 5-lb. box \$2, 25-lb. pkg. \$7.50.



## Key Brand Tree Wound Paint

Prevents decay after pruning. This residual, penetrating, antiseptic paint is not affected by heat, cold, or moisture. 1-qt. can \$1.20, postpaid \$1.35; 1-gal. can \$3, postpaid \$3.30; 5-gal. can \$13.50.

# KAYSO

## SPRAY SPREADER & ADHESIVE For Orchard and Garden Sprays

Kayso is the combined casein spreader and adhesive, recommended by experts in horticulture and used by progressive fruit- and vegetable-growers and florists throughout the United States.

Because of increased spreading and wetting properties, a tank of spray containing Kayso will cover more trees than ordinary spray. Kayso reduces waste of spray by preventing it from collecting in drops and rolling off the smooth surfaces of fruit, leaves, and bark. Kayso enables the efficient sprayerman very materially to reduce the cost of spraying.

Kayso keeps the spray from washing off.

### PRICES

8-oz. carton 25 cts., postpaid, 35 cts.; 2 lbs. 45 cts., postpaid, 60 cts.; 100 lbs. \$18. Ask for Special Circular

## Tree Tanglefoot

A sticky material for banding trunks of trees, vineyards, etc., to protect them against the ravages of climbing insect pests.

No mixing is required. It comes ready for use and is easily and quickly applied with a wooden paddle. One pound makes 15 to 20 lineal feet of band.

Lb. 60 cts., postpaid 70 cts.; 5 lbs. \$2.75, postpaid \$2.90; 10 lbs. \$5.25, postpaid \$5.50; 25 lbs. \$11, postpaid \$11.40.



## Hammond's Slug-Shot

The old reliable remedy for currant worms, cabbage worms, caterpillars and other insects that destroy vines and plants.

A light, composite, fine powder, distributed either by duster, bellows, or in water by spraying. Reliable in killing currant worms, potato bugs, cabbage worms, chicken lice, slugs, sow bugs, etc., and it is also strongly impregnated with fungicides.

1-lb. pkg. .... \$0 20 | 25 lbs. in 5-lb.  
5-lb. pkg. .... 55 | packages. \$2 50

## Bug Death

Prevents Blight and Kills Bugs  
Free from Paris Green or Arsenic

The favorite among truckers and gardeners for over twenty years for chewing insects on potatoes, tomatoes, squashes, cucumbers, cabbages, melons. No danger of arsenical injury to plants, bees, birds, or humans. Bug Death is a fine powder which may be applied dry or in water.

| Postpaid      |        | Postpaid        |        |
|---------------|--------|-----------------|--------|
| 1 lbs. \$0 20 | \$0 30 | 12½ lbs. \$1 40 | \$1 65 |
| 3 lbs. 40     | 55     | 100 lbs. 8 75   |        |
| 5 lbs. 60     | 80     |                 |        |

## Bug Death Alpha

A new companion preparation to regular Bug Death, especially for Sucking Insects, Lice and Aphids, and particularly for use on Fruit Trees, Berry Bushes, Grape-Vines, House Plants. Likewise a fine, tenacious powder, applied dry or in water. Ready for use in dust form just as it comes in the package. No Paris Green or Arsenic.

| Postpaid      |        | Postpaid           |  |
|---------------|--------|--------------------|--|
| 12-oz. \$0 20 | \$0 30 | 80-lb. keg. \$8 75 |  |
| 10-lb. 1 40   | 1 60   | 150 lbs. 16 00     |  |



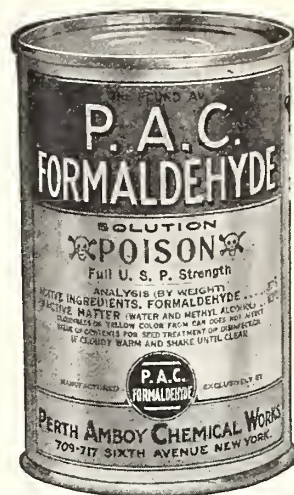
## Key Brand Non-Poisonous Weed Killer

Requires less water. Kills more weeds than poisonous weed killer, without endangering human, animal or bird life.

One gallon sufficient to treat 500 square feet. Dilute one part Key Brand Non-Poisonous Weed Killer to 20 parts of water, and apply with sprinkling cart or can. 1-qt. can 75 cts., postpaid 90c.; 1-gal. can \$2, postpaid \$2.30; 5-gal. can \$8.

## Hammond's Weed Killer

Hammond's Weed Killer has been in use for many years, and has held a useful place in all tidy towns to prevent the growth of weeds along gutters, paths or tennis-courts. Will, naturally, kill any kind of grass without distinction, so it must be used cautiously where grass is desired. Dilute 1 gallon to 30 or 40 gallons of water. Qt. 65 cts., gal. \$1.50, 5 gals. \$6.50, 10 gals. \$12.



## Formaldehyde

For wheat and barley smut, use one pint of Formaldehyde in 40 gallons of water. Sprinkle or dip seed in tubs; cover several hours; sow damp. For oat smut, spray oats with one pint Formaldehyde in 10 pints of water. Sack or sow.

## FOR POTATO SCAB AND RHIZOCTONIA

Soak potatoes two minutes in warm solution (118° to 122° Fahr.) of 1 pint Formaldehyde in 15 gallons water. Small lots on the stove in washboiler; larger lots in tank heated with tank heater or by steam from tractor or other boiler.

Treat soil with Formaldehyde to overcome root rot of most vegetables (U. S. Bulletin No. 217). Will prevent onion smut, lettuce rosette and rot, tobacco bed-rot, and damping-off fungi.

Lb. can 40 cts., 10 1-lb. cans \$3.50, 50 1-lb. cans \$15, 60-lb. keg \$10.50.

Ask for booklet and full directions.

## Terro Ant Killer

Will rid a place of ants in 24 hours. From pantries, refrigerators, plants, flowers or any other place infested with ants. Terro is guaranteed to do the work or money back. Bottle 50 cts. (postpaid 60 cts.).

## Key Brand Grafting Wax

For all pruning and grafting purposes. Very convenient when trimming trees and shrubbery, affording necessary protection. Comes in sticks and is quickly and easily handled. This item is one of such general use it should always be carried in ample quantities to meet every contingency. During winters when there is lots of snow, rabbits, mice, etc., often damage twigs and branches by nibbling at all they can reach, then Grafting Wax is required in larger quantities. 1-lb. pkg. 55 cts., postpaid 65 cts., ½-lb. pkg. 35 cts., postpaid 45 cts.



# SEED INOCULATION

*The Best Inoculation for  
All Legume Seeds*

*Insures Quicker Catch  
Bigger Crops*

Nodules with Nitrogen worth  
their weight in gold



Roots like this mean bigger  
yield, better soil

## USE

**STIMUGERM**  
LEGUME INOCULATION

## FOR

Bush Beans  
Pole Beans  
Lima Beans  
Soy Beans  
Sweet Peas  
Garden Peas  
Field Peas  
Cowpeas  
Vetch  
Alfalfa Clover  
Red Clover  
Alsike Clover  
Sweet Clover  
Crimson Clover  
Japan Clover

**STIMUGERM**  
LEGUME INOCULATION

## A Seed Inoculant That Increases Crop Production

Seeds of all legumes—beans, peas, clover, alfalfa, and related crops—will produce far better if inoculated with **Stimugerm**. In addition to the increased crops, these legumes leave in the soil a heavy deposit of nitrogen which benefits all succeeding crops. Gardeners and farmers who have used **Stimugerm** would not be without it.

**Stimugerm** is a culture of bacteria especially selected and bred for maximum vitality and ability to form nodules and take nitrogen from the air. **Stimugerm** contains many millions of active, hardy legume bacteria, guaranteed to work.

We believe in inoculation, and we recommend **Stimugerm** as the most reliable inoculant offered for sale. We urge that all legume seeds purchased from us be inoculated with **Stimugerm** before planting.

**Stimugerm** is economical and easy to use. Full instructions accompany each package. **Stimugerm** is dated and guaranteed for a full year. This insures absolutely fresh cultures from the laboratories at all times. You can obtain **Stimugerm** in either *jelly* or *humus* form.

When ordering be sure to specify crop and quantity of seed to be inoculated. State whether *jelly* or *humus* inoculant is preferred.

## PRICES POSTPAID

For small seeds—All Clovers including Alfalfa

|                    |        |                      |        |
|--------------------|--------|----------------------|--------|
| 1/4-bus. size..... | \$0 35 | 1-bus. size.....     | \$1 00 |
| 1/2-bus. size..... | 60     | 2 1/2-bus. size..... | 2 25   |

For large size seeds—All kinds of Beans, Peas, Soy Beans, Vetch, and Cowpeas.

|                    |        |
|--------------------|--------|
| 1/2-bus. size..... | \$0 35 |
| 1-bus. size.....   | 60     |
| 2-bus. size.....   | 1 10   |
| 5-bus. size.....   | 2 25   |

Special garden size for garden Peas, Beans, and Sweet Peas, 25 cts. You'll get more peas and beans, and larger sweet peas by using this.

**STIMUGERM**  
LEGUME INOCULATION

Will increase the yield and quality of legume crops giving quicker growth and earlier maturity. These cultures will increase the food value of legumes and enrich the soil for future crops, thereby increasing the permanent value of the farm.

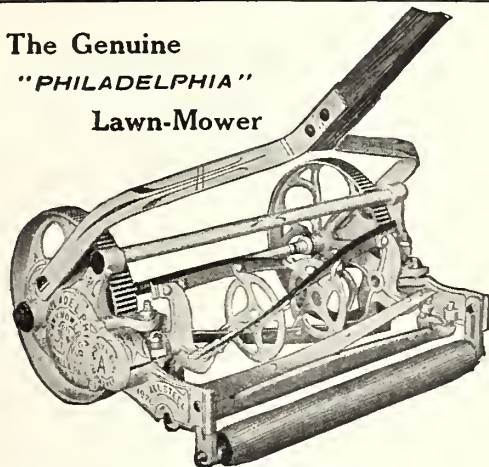


(Jelly Medium)



(Humus Medium)

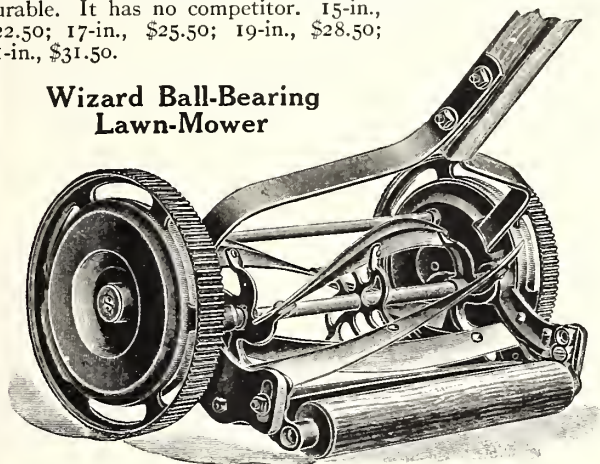
### The Genuine "PHILADELPHIA" Lawn-Mower



Four blades, 10-inch wheel, 6½-inch cylinder, train of three gears, double ratchet.

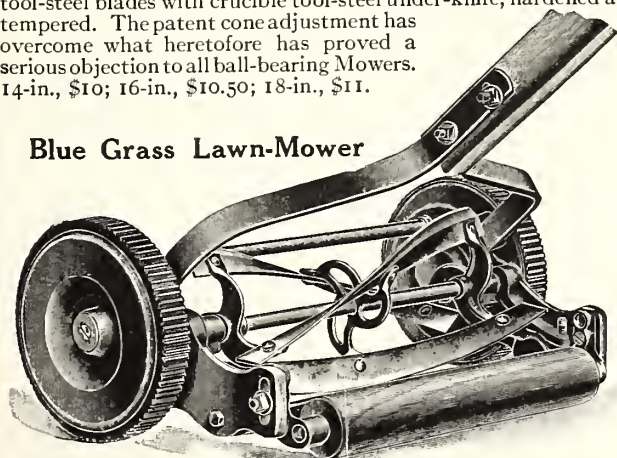
Style "A" All Steel. This is the lightest draft Lawn-Mower made, and, being made entirely of steel, it is by far the most durable. It has no competitor. 15-in., \$22.50; 17-in., \$25.50; 19-in., \$28.50; 21-in., \$31.50.

### Wizard Ball-Bearing Lawn-Mower



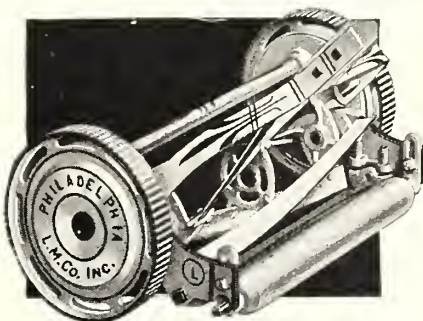
In the Wizard we offer a high-grade Lawn-Mower at a low price. It is equipped with 9-inch drive wheels, four tempered tool-steel blades with crucible tool-steel under-knife, hardened and tempered. The patent cone adjustment has overcome what heretofore has proved a serious objection to all ball-bearing Mowers. 14-in., \$10; 16-in., \$10.50; 18-in., \$11.

### Blue Grass Lawn-Mower



The Blue Grass Lawn-Mower has 8-inch drive wheel, shaft ½-inch diameter in adjustable plain bearing box, and three tempered tool-steel knives on reel. In the Blue Grass Lawn-Mower we have the best value that has ever been offered in a low-price machine. 12-in., \$6.50; 14-in., \$6.75; 16-in., \$7.25; 18-in., \$7.75.

### Philadelphia Lawn Mower—Style L

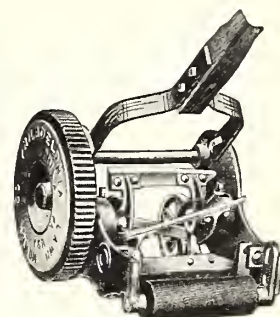


Designed for that class of trade which demands a well-built mower for use on small lawns—one that is light in weight and draft. It has 8-inch drive wheels, four crucible steel blades in the revolving cutter, flat sliding-pawl ratchets and is made on the same tools and by the same workmen who produce the higher grade Philadelphia Mowers. It can be depended upon in every respect, and is guaranteed for materials and workmanship. 14-in., \$9; 16-in., \$10.

### Genuine "PHILADELPHIA" Lawn Trimmer

Cylinder with 4 blades; driving wheel, 8 inches; single pinion; cuts within ¼-inch of edge; diameter of cylinder, 5½ inches.

An efficient and complete Lawn-Trimmer, built for durability and service. Positively cuts smoothly to ¼-inch of wall, post, tree, or fence. Used throughout the world in cemeteries, parks, and large estates. Vanadium crucible steel blades. Use of shears or sickle unnecessary. 6-inch, \$10.75.



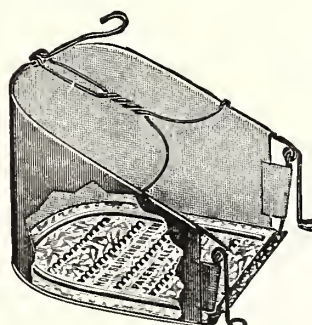
### Easy Emptying Grass Catchers

Galvanized sheet-steel bottom, heavy-weight duck sides. Sides are firmly fastened to the bottom by three folds of steel.

Furnished with convenient, well-balanced Easy-Emptying Handle. Projections on the bottom prevent grass from slipping forward while mowing.

No. 10G. Fits 12 to 18-in. mower..... \$1 50

No. 12G. Fits 16 to 22-in. mower..... 1 75



No. 10G and No. 12G

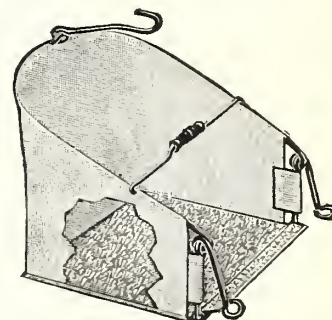
This style has a central cross handle which gives a balanced grip for carrying. It is readily lifted off to empty. Sides of light-weight duck material.

No. 26G. Fits 12 to 16-in. mower..... \$1 00

No. 27G. Fits 16 to 20-in. mower..... 1 25

### FARM AND GARDEN BOOKS

See page 208 for our list of the best Farm and Garden Books; Poultry Books, page 207.

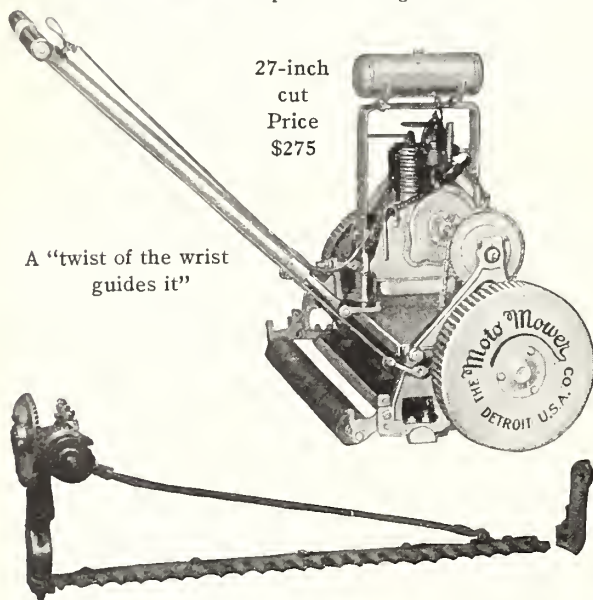


No. 26G and No. 27G

# Moto-Mower

TRADE MARK

Ask for Special Catalogue



27-inch  
cut  
Price  
\$275

A "twist of the wrist  
guides it"

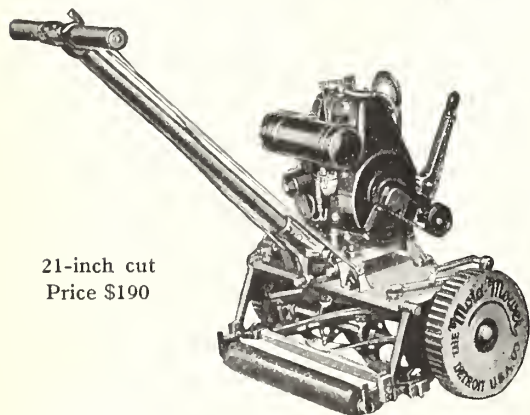
## GENERAL SPECIFICATIONS

Width of Cut.....27 inches  
Cutting Adjustment..... $\frac{5}{16}$  to  $3\frac{1}{2}$  inches  
Cutting Speed..... $\frac{1}{2}$  to  $3\frac{1}{2}$  M.P.H.  
Cutting Capacity.....4 to 5 acres per day  
Climbs.....35 per cent grade  
Gasoline Consumption per day, about 1 gal.  
Weight.....(net) 200 pounds  
Weight.(Crated for shipment) 300 pounds  
Color.....Gray enamel

## MOTOR

Four-cycle, valve-in-head, air-cooled

Bore..... $2\frac{1}{2}$  inches  
Stroke..... $2\frac{1}{2}$  inches  
Horsepower..... $1\frac{1}{2}$   
Speed.....600 to 2,000 r. p. m.  
Parts to lubricate.....1 place  
Control.....Throttle  
Ignition.....Magnet  
Carburetor.....Tillotson



21-inch cut  
Price \$190

## GENERAL SPECIFICATIONS

Width of Cut.....21 inches  
Cutting Adjustment..... $\frac{5}{16}$  to  $2\frac{1}{2}$  inches  
Cutting Speed..... $\frac{1}{2}$  to  $3\frac{1}{2}$  M.P.H.  
Cutting Capacity..... $2\frac{1}{2}$  to 3 acres per day  
Climbs.....25 per cent grade  
Gas Consumption per day, about 1 gallon  
Weight.....(net) 185 pounds  
Weight.(Crated for shipment) 235 pounds  
Color.....Gray enamel

## MOTOR

Four-cycle, valve-in-head, air-cooled

Bore..... $2\frac{1}{4}$  inches  
Stroke..... $2\frac{1}{4}$  inches  
Horsepower.....1  
Speed.....600 to 2,000 r. p. m.  
Parts to lubricate.....1 place  
Control.....Throttle  
Ignition.....Flywheel Magneto  
Carburetor.....Tillotson

## The Detroit Model Moto-Mower

Moto-Mower engineers have developed the Detroit Model to a point where it is fully dependable in service, durable, economical in operation, free from mechanical trouble, delightfully simple in operation, and easy to handle. Control is so simple that a "twist of the wrist guides it." Through two handle-grips it can be turned to right or left on its own power, with the power always applied to the outside wheel, where it should be. Throttle control within easy reach on the handle makes it possible to instantly vary the speed to suit conditions. In-built flywheel magneto, waterproofed, with automatic spark advance. Other details in specifications below.

## Moto-Mower Weed Clipper

The Detroit Model may be had with a sickle-bar (shown at left) for clipping dandelions, plantain, buckhorn, and other destroyers of lawn beauty which cannot be cut by the revolving blades of any lawn mower. This clipper can be attached or detached in a few minutes by removing one nut from the tie rod. Simple in construction, light in weight, \$50.

## MOWER

Blades, revolving, 5 Crucible Steel (tempered)  
Blade, bottom, turned up edge (tempered)  
Clutches.....Dry disc type  
Control, wheels can be engaged either together or separately  
Reel Bearings.....Timken roller, self-adjusting  
Handle.....Tubular steel  
Side Frames.....Malleable iron  
Chains.....Diamond roller  
Drive Wheels, indestructible steel, 14-inch diameter.

## The City Model Moto-Mower

For those having moderately large or small lawns the City Model fills an immediate need. It is compact in design, light in weight for its strength, and embodies the essential high-grade materials and constructional features of the Detroit Model. It will cut  $2\frac{1}{2}$  to 3 acres a day. Cooling is made doubly efficient by two blowers. It is exceptionally efficient and economical. A special new feature of this model is the hand starting-crank (shown in the cut at the left). This crank folds against the side of the blower, out of the way, when not in use. It makes starting unusually easy. Further mechanical facts are given in the detailed specifications below.

## MOWER

Blades, revolving, 5 Crucible Steel (tempered)  
Blade, bottom, turned up edge (tempered)  
Clutches.....Dry band type  
Control, wheels can be engaged either together or separately  
Reel Bearings.....Timken roller  
Handle.....Steel, fully braced  
Side Frames.....Malleable iron  
Chains.....Diamond roller

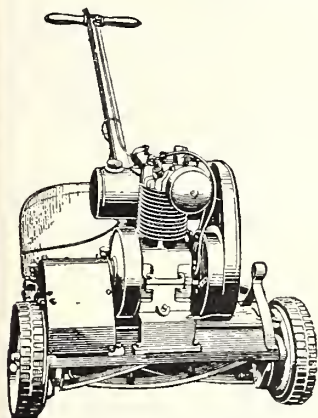
# JACOBSEN POWER LAWN MOWERS

## 4-Acre Heavy Duty Mower

For years Jacobsen Power Mowers have been steadily growing in favor and today enjoy a country-wide prestige. The Jacobsen 4-Acre is a general-purpose, heavy-duty Mower with a 24-inch cutting reel. It does the work of four or five men and hand mowers, and does it better. On large private lawns, school, hospital or industrial lawns, in parks and cemeteries, it is an economical lawn beautifier.

The sturdy motor propels it up grades and on terraces. The automobile-type differential makes it steer easily about shrubs, flowerbeds, and other obstructions. It has separate clutch control of traction and cutting units, and the cutting height is easily adjusted.

It is gear driven—no chains, no sprockets—and the gears are enclosed in oil-tight housings. The knives are sharpened by the Mower's own power without removing the reel. **Price \$290.**



## Jacobsen Junior Power Lawn Mower

This Mower cuts a 19-inch swath and is suitable for moderately large lawns. It does the work of two or three men with hand mowers. On lawns broken up by numerous obstructions, or heavy terraces, the Junior is particularly efficient. Like other Jacobsen mowers, it travels on its own power and is easier to handle than a push-type mower.

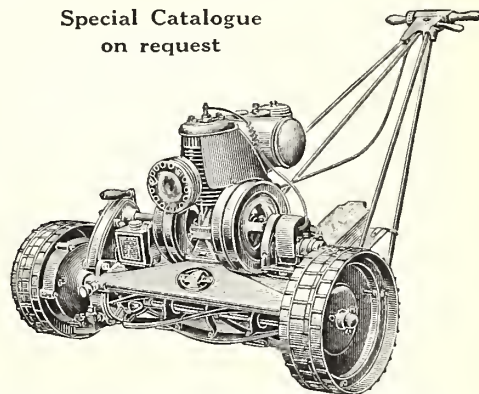
Independent clutches give full control at the steering handle for both traction and cutting unit. The 2½ by 2½ slow-speed motor has abundant power for the work required of it. It starts with a crank—not a rope pull. Transmission and clutches are enclosed in oil-tight housings. Like all Jacobsen products, it is finely engineered and built of quality material. This Mower also has a self-sharpening device which is a great convenience. **Price \$210.**

## Jacobsen Estate Power Mower

This highly refined Mower is specially designed for the estate owner who wishes to have the finest possible lawn at a minimum cost of upkeep. Traction is furnished by a large, hollow, corrugated roller in two sections with a differential between the sections to effect easy turning. The weight, 275 pounds, is distributed over the large traction surface and is just sufficient to give a rolling effect considered so beneficial to the lawn by experienced gardeners. The cutting height is adjustable from a putting-green shave to 1½ inches.

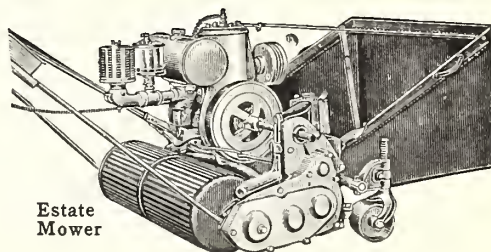
The Estate Mower has the same sturdy motor as the 4-Acre Mower, and the Mower is so easily handled that the old gardener can operate it without fatigue. It trims close to the edge of flower beds, eliminating the necessity for additional hand trimming. **Price \$315 with Grass-Catcher.**

Special Catalogue  
on request



## Jacobsen Power Putting Green Mowers

A Mower specially designed for the delicate, exacting work on putting greens. All major castings are airplane aluminum. The weight is balanced over the large traction roller. It will not scalp or scuff the green. Used by prominent greens throughout the country. Made in 19-inch and 24-inch size. **Special catalog and prices on request.**



Estate  
Mower

## WIARD PLOWS

The Wiard Plows have been continuously manufactured since 1804. Their history has been a record of constant improvement in efficiency, strength and durability, and they are today recognized as leaders in this class of Agricultural Implements.

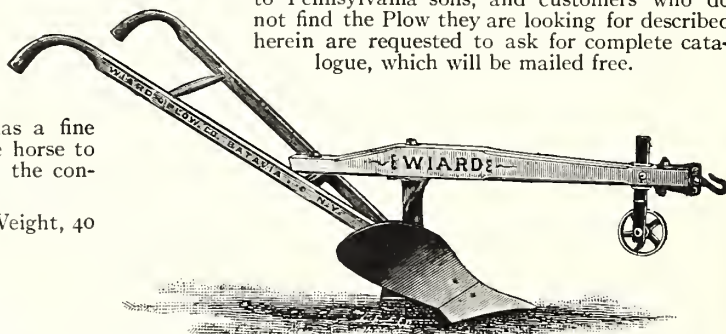
The real quality of an implement is shown, not by what its makers claim for it, but by the results which it gives in the hands of the average user. Therefore, go to the farmer, whom you consider fair and without prejudice, and see what he says about Wiard Implements; in other words, "Ask the man who owns one." Space will permit of our showing but a few of the leading styles adapted to Pennsylvania soils, and customers who do not find the Plow they are looking for described herein are requested to ask for complete catalogue, which will be mailed free.

### WIARD ONE-HORSE PLOWS

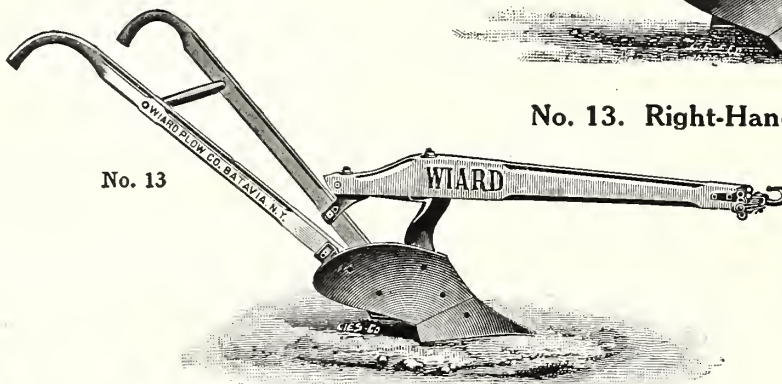
#### No. 62. Right-Hand, Chilled Moldboard

This is the smallest Wood Beam Wiard Plow. It has a fine turning moldboard and an adjustable beam, allowing the horse to walk in the furrow or on the land; is light, strong, and the construction is perfect.

Capacity, 3 to 5 inches deep, 6 to 8 inches wide. Weight, 40 pounds. Plain, \$8; wheel, \$1.75 extra.



No. 13

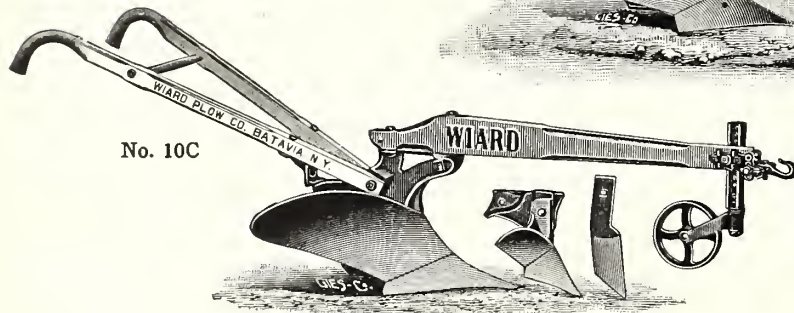


#### No. 13. Right-Hand, Chilled Moldboard

A medium-sized one-horse plow adapted to all soils. Has adjustable Beam. Handles can be raised or lowered.

Capacity, 4 to 6 in. deep, 6 to 9 inches wide. Weight, 52 pounds. Plain, \$9; wheel, \$1.75 extra.

No. 10C



#### No. 10C. Right-Hand, Chilled Moldboard

This is the acme of perfection in one-horse Plows. Adjustable beam so that the horse can walk in the furrow or on the land

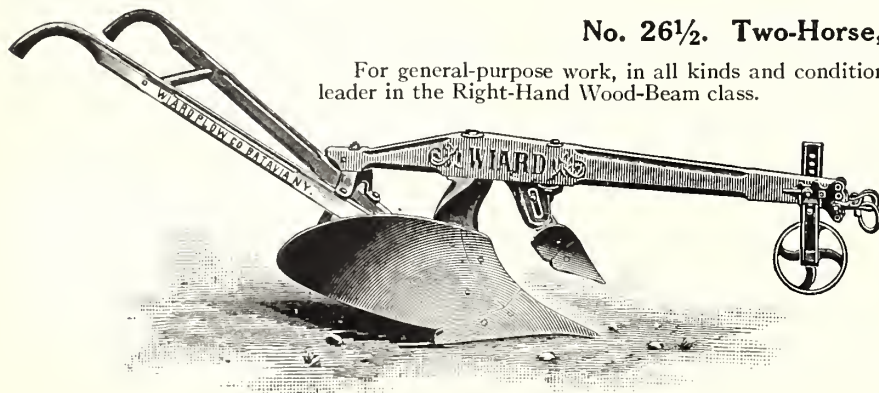
Capacity, 4 to 7 inches deep, 6 to 11 inches wide. Weight 77 pounds. Plain, \$12.75; wheel, \$2 extra; jointer or colter, \$3.50 extra.

### WIARD TWO-HORSE PLOWS

The Plows shown on this and the following pages are constructed with special reference to obtaining the greatest strength with least weight. They have been thoroughly tested by hundreds of farmers in all kinds and conditions of soil and are unexcelled for general-purpose work.

#### No. 26½. Two-Horse, Right-Hand

For general-purpose work, in all kinds and conditions of soils, this plow cannot be excelled. A leader in the Right-Hand Wood-Beam class.



Capacity, 5 to 8 inches deep, 10 to 14 inches wide, weight, 115 pounds. Plain, \$20, wheel, \$2 extra; jointer, \$4.75 extra; steel moldboard, \$2 extra.

A full line of extras for Wiard, Oliver, Vulcan, Gale, and South Bend Plows always in stock. Accept none but the "Genuine."

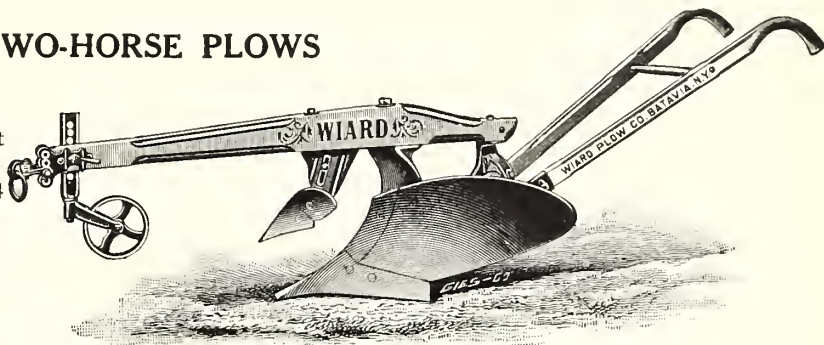
## WIARD TWO-HORSE PLOWS

### Two-Horse, Left-Hand

One of the old reliables and a leader yet. Light draft. Greatest strength with least weight.

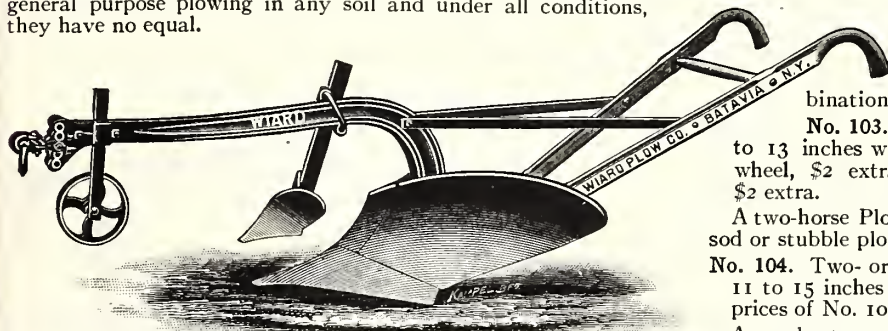
No. 27. Capacity, 6 to 8 inches deep, 10 to 14 inches wide, weight, 105 pounds. Plain, \$20; wheel, \$2 extra; jointer, \$4.75 extra; steel moldboard, \$2 extra.

No. 28. Capacity 7 to 9 inches deep, 12 to 16 inches wide, weight 112 pounds. Add \$1 to prices of No. 27.



## WIARD PATENT STEEL-BEAM PLOWS

This series of Plows is the "acme of perfection" in Plow construction. They are made to wear and from the best material obtainable are balanced so as to handle very easily, run steadily; are light in draft and have a large capacity and superior turning qualities. For general purpose plowing in any soil and under all conditions, they have no equal.



### Nos. 103 and 104 Left-Hand

The latest "New Pattern" series of combination, grooved steel-beam, general purpose Plows.

No. 103. Two-horse. Capacity, 4 to 7 inches deep, 9 to 13 inches wide. Weight, 120 pounds. Plain, \$17.75; wheel, \$2 extra; jointer, \$4.75 extra; steel moldboard, \$2 extra.

A two-horse Plow of medium capacity, and suited to either sod or stubble plowing.

No. 104. Two- or three-horse. Capacity, 5 to 8 inches deep, 11 to 15 inches wide. Weight, 130 pounds. Add \$1.75 to prices of No. 103.

A regular two- or three-horse Plow, suited to all soils.

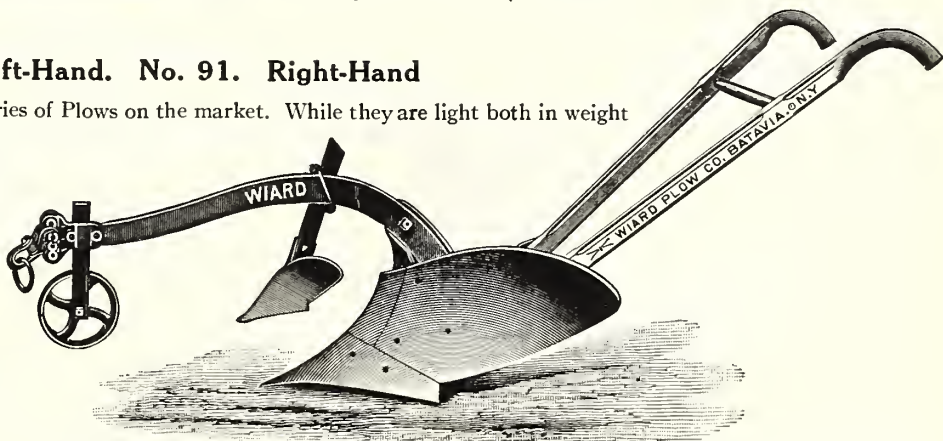
No. 43. Right-Hand. Same capacity, size and price as No. 103 Left-Hand.

No. 44. Right-Hand. Same capacity, size and price as No. 104 Left-Hand.

### No. 81. Left-Hand. No. 91. Right-Hand

This is one of the most popular series of Plows on the market. While they are light both in weight and draft, they are very strong. The moldboards have superior turning qualities, and they are adapted to all conditions of soil. They are so balanced that they handle easily. They have great strength and wearing qualities and far outlast many other Plows which are sold at a higher price, which explains the great popularity they have attained.

They are especially adapted to the hard and uneven soils of the states of Pennsylvania, Maryland, Ohio, and other sections where left-hand Plows are used.



Capacity, 5 to 8 inches deep, 10 to 14 inches wide. Weight, 128 pounds. Plain, \$19; wheel, \$2 extra; jointer, \$4.75 extra; steel moldboard, \$2 extra.

## PLOW REPAIRS

In considering the purchase of a Plow, one of the important questions always is

**"Where can I get repairs?"**

We carry in stock a full line of extras for all the plows we sell, and our customers do not lose valuable time waiting for repair parts coming from distant factories.

Both dealers and users should beware of imitations, especially of spurious points, jointer points, and landsides. Such repairs are generally made of poor material, they seldom fit, and often render the implement useless.

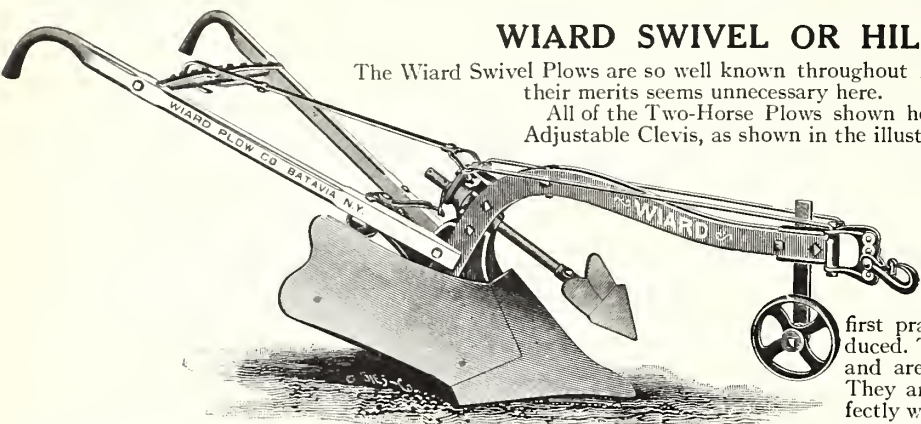
## WIARD SWIVEL OR HILLSIDE PLOWS

The Wiard Swivel Plows are so well known throughout Pennsylvania that a detailed account of their merits seems unnecessary here.

All of the Two-Horse Plows shown here are furnished with either Common or Adjustable Clevis, as shown in the illustration.

## WIARD STEEL-BEAM SWIVEL PLOWS

The Wiard Plow Co. has always had the reputation for making the best Hillside plow on the market. These are the first practical Steel-beam Swivel Plows ever produced. The beams are of highest grade forged steel, and are stronger than any other beam made. They are so adjusted that the Plow works perfectly when reversed either way, and all the parts are attached in the simplest but strongest manner.



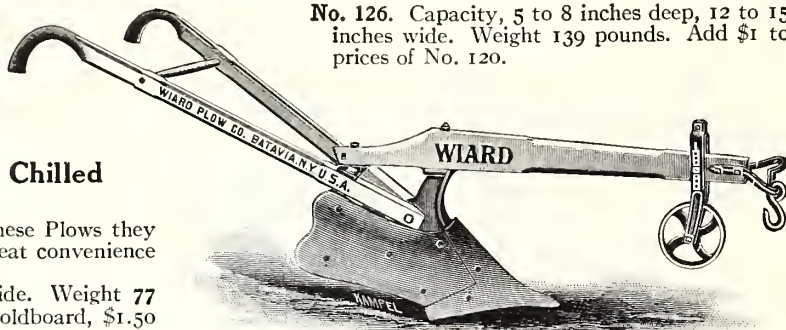
No. 120. Capacity, 5 to 8 inches deep, 10 to 13 inches wide. Weight 118 pounds. Plain, \$22.50; adjustable clevis, \$1.50 extra; wheel, \$2 extra; jointer, \$4.75 extra; colter, \$4 extra; steel moldboard, \$2 extra.

## WIARD WOOD BEAM SWIVEL PLOWS

### No. 21. One-Horse Hillside Plow, Chilled Moldboard

By an ingenious but simple clevis attached to these Plows they can be used with horse walking in the furrow, a great convenience for garden and vineyard work.

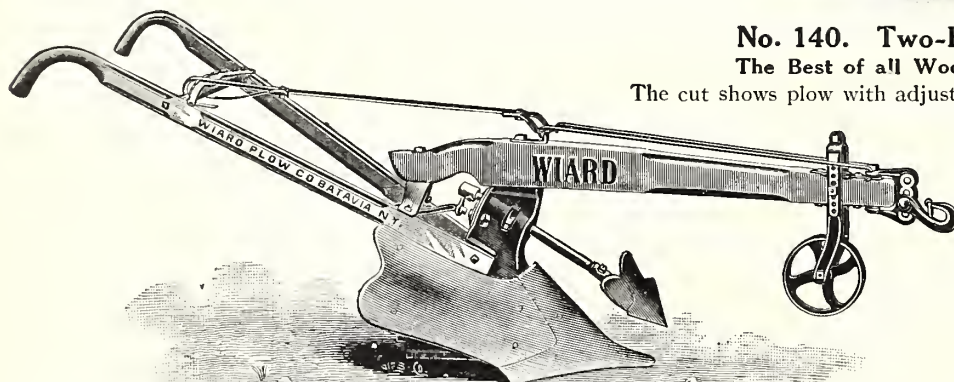
Capacity, 4 to 7 inches deep, 6 to 10 inches wide. Weight 77 pounds. Plain, \$13.50; wheel, \$1.75 extra; steel moldboard, \$1.50 extra.



No. 126. Capacity, 5 to 8 inches deep, 12 to 15 inches wide. Weight 139 pounds. Add \$1 to prices of No. 120.

### No. 140. Two-Horse Swivel Plow The Best of all Wood-Beam Swivel Plows

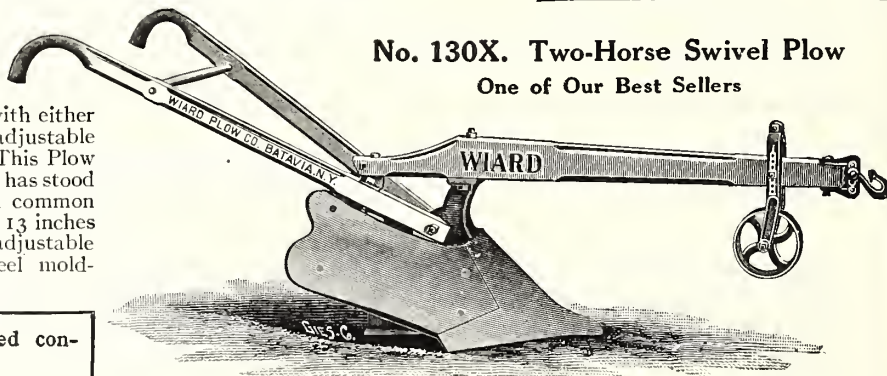
The cut shows plow with adjustable clevis and jointer. This is the most superb of all Wood-Beam Swivel Plows. It has a strong, high standard and long shoe, making it one of the most steady running Plows in our list. Capacity, 5 to 8 inches deep, 10 to 13 inches wide. Weight 115 pounds. Plain \$19, adjustable clevis, \$1.50 extra; wheel, \$2 extra; jointer, \$4.75 extra; colter, \$4 extra; steel moldboard, \$2 extra.



The Wiard leads  
in Swivel Plows

This plow has about the same capacity as the No. 140, the wearing parts being the same except the shoe. The outlines are somewhat different, as shown by the cut, and the Plow is lighter. It can be fitted with either cast-iron or soft center-steel moldboard, adjustable clevis and adjustable automatic colter. This Plow has been on the market for many years and has stood the test of time. The cut shows Plow with common clevis. Capacity, 5 to 8 inches deep, 10 to 13 inches wide. Weight 104 pounds. Plain, \$18; adjustable clevis, \$1.50 extra; wheel, \$2 extra; steel moldboard, \$2 extra.

### No. 130X. Two-Horse Swivel Plow One of Our Best Sellers

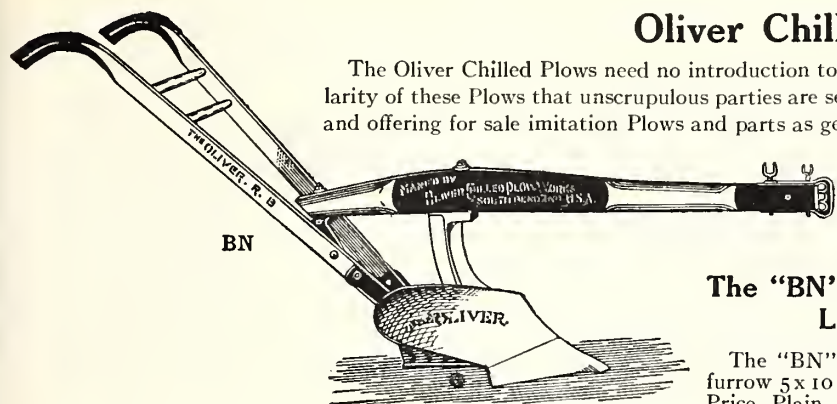


Wiard Plows have been manufactured continuously since 1804

## Oliver Chilled Plows

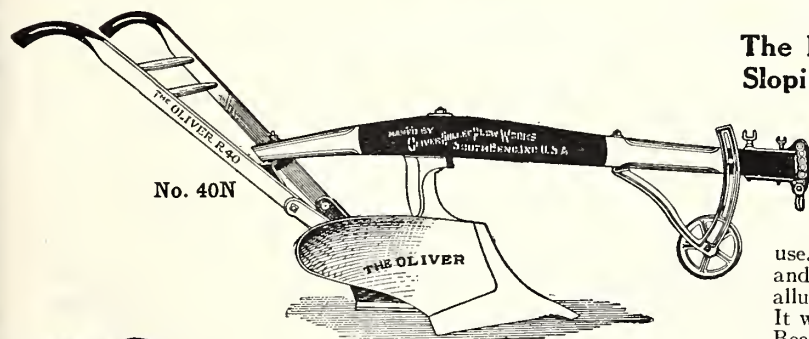
The Oliver Chilled Plows need no introduction to the Pennsylvania farmer. So great is the popularity of these Plows that unscrupulous parties are seeking to trade upon their good name by making and offering for sale imitation Plows and parts as genuine.

We have space to show but a few of the leading favorites among Pennsylvania farmers, but will send a complete catalogue on request. A full line of genuine Oliver repairs always in stock.



### The "BN" Wood-Beam, Full Chilled, Sloping Landside. Right-Hand Only

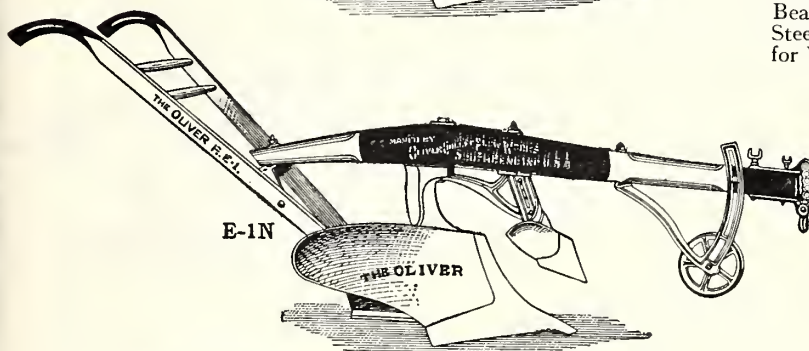
The "BN" Plow is a light one-horse Plow. It will turn a furrow 5 x 10 inches, and is a prime favorite. Weight, 65 lbs. Price, Plain, \$10.75; Wheel, extra \$1.50; Jointer, extra \$3.25.



### The No. 40N Wood-Beam, Full Chilled, Sloping Landside, Right and Left-Hand

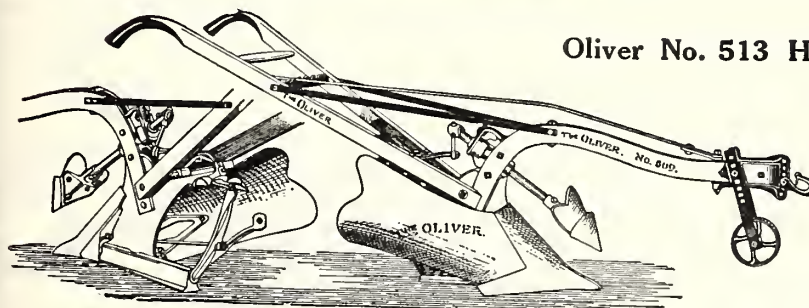
This is the veteran Plow of the Oliver line and for many years it has been familiar to a majority of the farmers in America.

The No. 40N is a two or three-horse Plow, first-class in all respects and immensely popular, its sales exceeding those of any other Plow in use. Always reliable, its great capacity, steady running and turning qualities, make it valuable in sandy or alluvial lands, and on farms containing a variety of soils. It will turn a furrow 9 x 16 inches. Weight of Wood-Beam 125 lbs., Steel-Beam 153 lbs. Price, Wood or Steel-Beam, Plain, \$21.50. Wheel, extra \$2.25; Jointer for Wood-Beam, extra \$3.50; for Steel-Beam, \$4.50.



### The E-1N Wood-Beam Only, Full Chilled, Sloping Landside, Right and Left-Hand

The E-1N Plow is a very popular heavy two-horse or light three-horse Plow, and intended for general-purpose work. Capacity, 7 x 14 inches. Weight, 118 lbs. Price, Plain \$21.50; Wheel, extra \$2.25; Jointer, extra \$3.50.



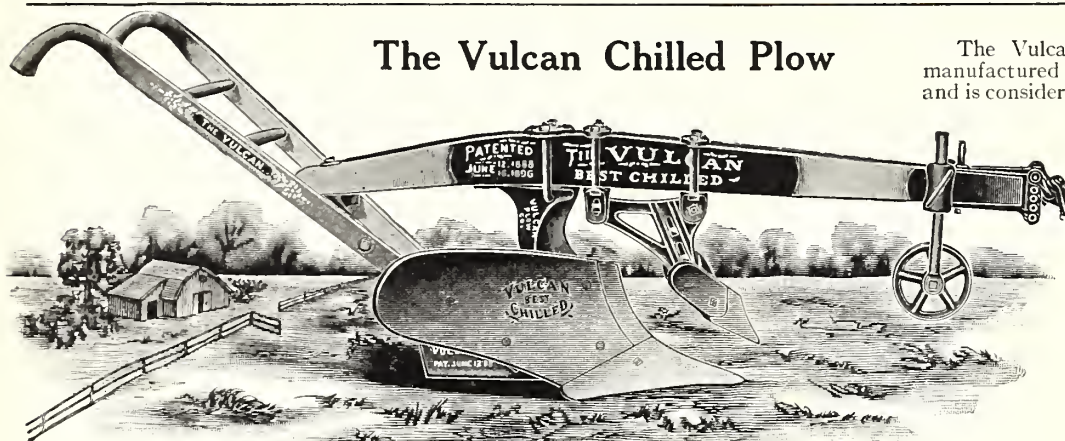
### Oliver No. 513 Hillside, Steel-Beam Plow

The illustration shows a new and very neat pattern of Hillside Plow, which possesses so many valuable features as to make it a leader of its class. Light in weight, light in draft and the shape and turning qualities are A-1. Bottoms are long, insuring steadiness and ease of handling. Capacity, 8 x 15 inches. Weight 144 lbs. Price, Plain, \$25.00; Wheel, extra \$1.50; Jointer, extra \$3.

### Prices of other Oliver Chilled Plows

| No. | Beam  | Hand   | 1-Horse | Plain   | Wheel  | Jointer | No.    | Beam  | Hand     | 1-Horse | Plain   | Wheel  | Jointer |
|-----|-------|--------|---------|---------|--------|---------|--------|-------|----------|---------|---------|--------|---------|
| 10N | Wood  | Right  | 1-Horse | \$14 50 | \$1 50 | \$3 25  | 51     | Wood  | Hillside | 1-Horse | \$12 50 | \$1 50 |         |
| 13N | Wood  | Right  | 1-Horse | 16 25   | 1 50   | 3 25    | 53 1/2 | Wood  | Hillside | 2-Horse | 19 75   | 1 75   |         |
| 20N | Wood  | R or L | 2-Horse | 19 00   | 2 25   | 3 50    | 153    | Steel | Hillside | 1-Horse | 12 50   |        |         |
| 83  | Steel | Left   | 2-Horse | 19 50   | 2 00   | 4 25    | 512    | Steel | Hillside | 2-Horse | 22 50   | 1 50   | 3 00    |
| 84  | Steel | R or L | 2-Horse | 22 00   | 2 00   | 4 25    |        |       |          |         |         |        |         |

SPECIAL CIRCULARS OF ANY OF ABOVE PLOWS MAILED ON REQUEST



## The Vulcan Chilled Plow

The Vulcan Chilled Plow has been manufactured for more than a half century and is considered by many users as the best Chilled Plow manufactured. Superior construction of the best material by competent mechanics is responsible for its strength, light draft and steady running. They are equipped with ribbed moldboards, which act as strengthening braces, and corrugated points, which it is claimed will outwear ordinary points and also hold a cutting edge a greater length of time.

|        | Beam  | Hand          | Capacity   | Weight   | Plain   | Wheel  | Jointers |
|--------|-------|---------------|------------|----------|---------|--------|----------|
| No. 8  | Wood  | Right         | 5 x 8 in.  | 77 lbs   | \$11 25 |        |          |
| No. 13 | Wood  | Right or Left | 8 x 13 in. | 127 lbs  | 19 75   | \$1 75 | \$5 00   |
| No. 14 | Wood  | Right or Left | 8 x 14 in. | 135 lbs. | 21 75   | 1 75   | 5 00     |
| No. 13 | Steel | Right or Left | 8 x 13 in. | 145 lbs. | 19 75   | 1 75   | 6 00     |
| No. 14 | Steel | Right or Left | 8 x 14 in. | 155 lbs. | 21 75   | 1 75   | 6 00     |
| No. 8  | Wood  | Hillside      | 5 x 8 in.  | 69 lbs.  | 13 00   |        |          |
| No. 10 | Wood  | Hillside      | 7 x 10 in. | 108 lbs. | 17 00   |        |          |
| No. 8  | Steel | Hillside      | 5 x 8 in.  | 73 lbs.  | 13 00   | 1 75   |          |
| No. 10 | Steel | Hillside      | 7 x 10 in. | 112 lbs. | 17 00   | 1 75   |          |
| No. 12 | Steel | Hillside      | 8 x 12 in. | 143 lbs. | 23 50   | 1 75   | 6 00     |

## Wiard No. 32 Tractor Plow

**STRONG, DURABLE, LIGHT DRAFT, ADJUSTABLE WIDTH OF CUT  
TWO BOTTOM OR SINGLE BOTTOM. MADE BY THE "OLDEST PLOW MAKERS IN AMERICA"**

The Wiard No. 32 Two Bottom Tractor Plow is shown at right with the regular equipment of combination rolling colters and jointers, pin break hitch, regular land-sides, chilled moldboards and points. It can be fitted with soft center steel moldboards, common jointers, and patented spring trip hitch. A landing lever attachment can also be furnished with this Plow to give more or less lead to the Plow on uneven ground, assuring that full furrow capacity is gained by each bottom.

The entire Plow is constructed with an idea to simplicity and the number of parts have been reduced to a minimum, knowing that with few parts making all necessary adjustments, a standard of desirability in plow construction has been attained.

Ease of draft, smoothness of furrow and durability of Plow are unexcelled.

The bottoms are constructed throughout for use in tractor plowing, and have been used and proved for many years. There is a good easy turn to the moldboard but it puts the furrow over, covering all vegetation, manure, or trash of any kind. It has a capacity of from 5 to 8 inches deep.

There is a liberal clearance between the moldboards on these bottoms so as to allow free operation and turning capacity when in heavy stubble or trash. They will not load.

The main frame of the Plow is so constructed as to give an amply high lift to the bottoms, getting them out of the way of ordinary obstructions. This frame is adjustable for 24 or 28-inch plowing by the removal of six bolts.

The beams are made of high carbon steel,  $1\frac{1}{2} \times 2\frac{1}{2}$  inches, and are heat treated and tempered by the latest practical process. They carry the well-known Wiard guarantee of satisfactory performance.

Operating levers are easily reached from the tractor seat. The depth and level of Plows may be instantly changed without removing both hands from steering wheel.

Plows are lifted by tractive power of the land wheel. This lift has been thoroughly tried and approved. One pull on the trip starts action of the power lift which leaves the plows high off the ground. Another pull on the trip lowers the plows and they immediately take the depth as set by the levers.

The wheels used on this Plow are strong and durable and are designed particularly for this type of Plow.

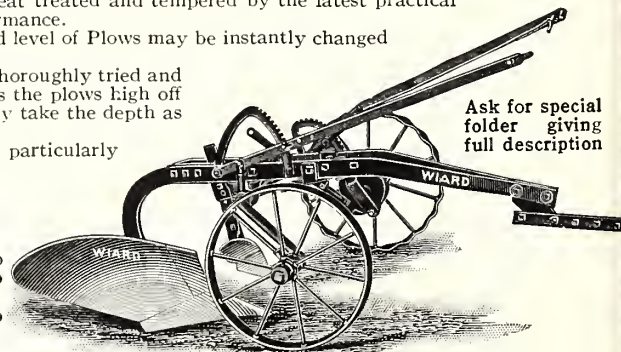
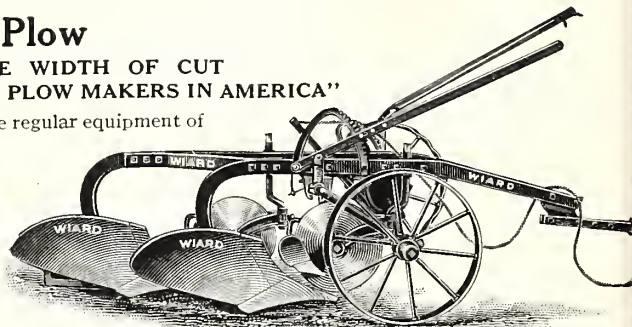
### PRICES

#### Two Bottom, 24 to 28-inch cut

|   |         |
|---|---------|
| With chilled bottoms, combination rolling colters and jointers, regular hitch | \$93 50 |
| For steel moldboards instead of chilled, add                                  | 4 00    |
| For jointers instead of combination rolling colters and jointers, deduct      | 4 50    |

#### Single Bottom, 16 to 18-inch cut

|  |         |
|--|---------|
| The Single Bottom Plow is of the same rigid construction throughout as the Two Bottom Plow. It has lighter draft and will do more uniform work in hard ground and on hillside. A Fordson Tractor or any light tractor will handle it at a faster plowing speed than a two Bottom Plow, and it will do nearly as much work. For deep plowing it has no equal. With chilled bottoms, combination rolling colter and jointer, regular hitch | \$80 00 |
| For steel moldboards instead of chilled, add   | 2 00    |
| For jointers instead of combination rolling colters and jointers, deduct   | 2 25    |
| Spring trip-hitch and landing lever attachment   | 13 00   |



Ask for special  
folder giving  
full description

## The Wiard Reversible or Two-Way Sulky Plow

This Sulky is adapted to all soils, leaves no ridges or dead furrows and does perfect work on either level land or side hill.

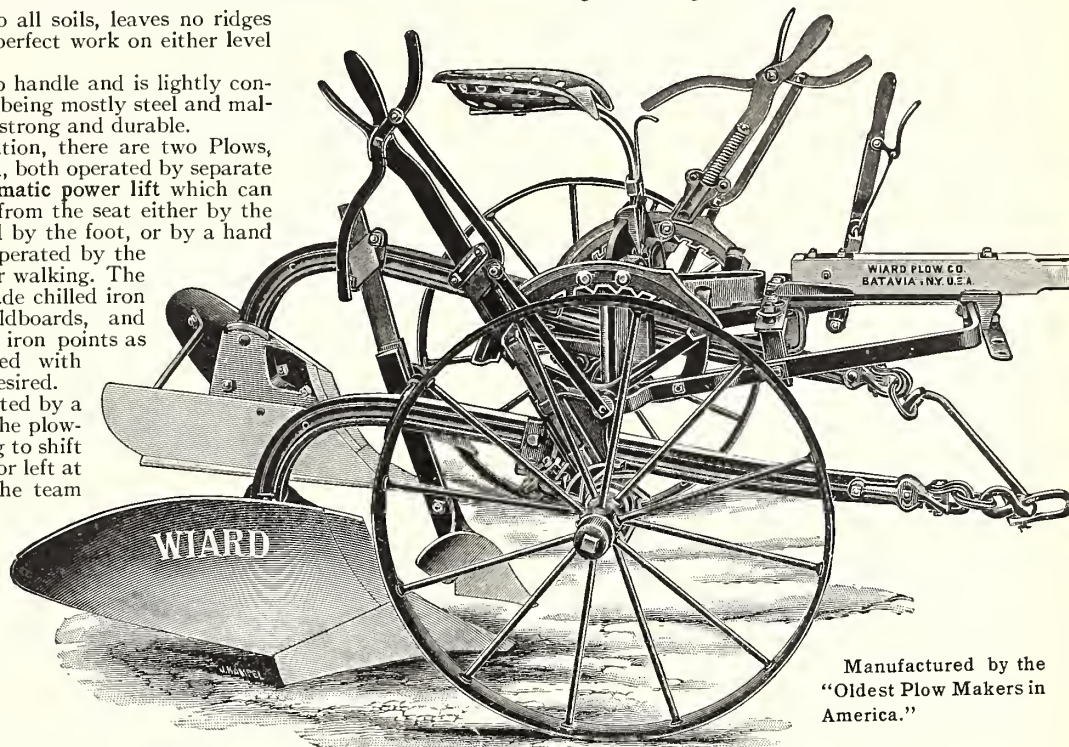
It is very simple, easy to handle and is lightly constructed, the material used being mostly steel and malleable iron, making it very strong and durable.

As shown in the illustration, there are two Plows, one right- and one left-hand, both operated by separate levers and having an automatic power lift which can be operated by the driver from the seat either by the use of a trip lever operated by the foot, or by a hand trip lever which can be operated by the driver either when riding or walking. The Plows have the highest grade chilled iron or soft-center steel moldboards, and either forged steel or cast iron points as ordered, and can be fitted with jointer or plain colter, as desired.

The Pole Shifter is operated by a hand lever, which enables the plowman while riding or walking to shift the pole either to the right or left at any angle desired, to suit the team and get the proper width of furrow, either on flat land or side hill, without side draft.

The Automatic (Power Lift) Foot Trip operated as follows: The Plow is lifted from the furrow by the team while in motion, by pressure of the foot on the trip lever, until the Plow begins to lift and the lever moves forward, which will then release and lock itself in place. The lift can also be operated by hand by the driver, either from the seat when riding or when walking behind. It unlocks by pressure of the foot on the foot trip or by hand by pressure of the upper rear handle of dog, lowering the Plow.

The Sulky is perfectly balanced so that whether the operator is on the seat or following the Plow there is absolutely no weight on the horses' necks. The seat can be adjusted so as to allow it to be leveled when plowing on side hill, throwing the weight of the operator towards the upper wheel, giving comfort and ease to the driver.



Manufactured by the  
"Oldest Plow Makers in  
America."

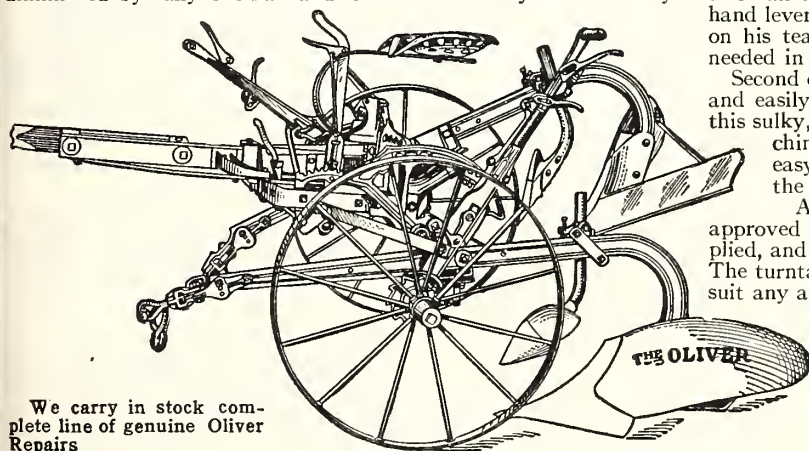
The Double Sulky can be fitted with the following bottoms: Nos. 43 right and 103 left. Cuts 4 to 7 in. deep, 9 to 13 in. wide. With chilled or steel molds. Nos. 44 right and 104 left. Cuts 5 to 8 in. deep, 11 to 15 in. wide. With chilled or steel molds.

No. 400. Two- or three-horse. Weight 550 lbs. Complete with chilled moldboards, jointers, or plain colters, cast-iron points, two and three-horse hitch, \$100; fitted with steel mold boards, \$4 extra; fitted with forged steel points, \$8 extra. Ask for Special Circular.

## The Oliver No. 23 Reversible Sulky Plow

The No. 23 Sulky Plow is fitted with No. 84 bottom s, right and left, capacity about 8 by 16 inches, chilled or steel moldboards. In sections where this Plow has been used, it has become very popular, which has been proved by the sales which have grown by leaps and bounds.

By means of the "horse-lift" which is brought into play by simply pressing forward slightly on the foot-trip, the operator's work is diminished by fully one-half and it is not necessary to lean away back in an uncomfortable and often unsafe position to use the hand lever. With this Plow the operator can keep his eyes on his team and his hands on the reins, the feet only are needed in order to raise the Plow.



We carry in stock complete line of genuine Oliver Repairs

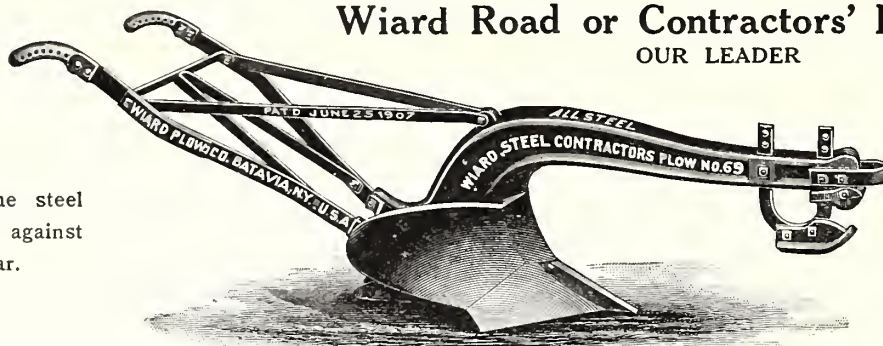
Second only to this important improvement is the simple and easily operated tilting device connected with the seat of this sulky, which when plowing along hillside while the machine is, of course, leaning down hill, makes it very easy for the operator to keep a level seat and maintain the equilibrium of the Plow.

Additional distinct points of advantage are the most approved and convenient guiding lever most effectively applied, and the greater range of pole-shift for hillside plowing. The turntable on beam makes it possible to land the plow to suit any and all conditions—changing the Plow for use with two or three horses is a simple and easy matter—a draft device is provided that is sure to work satisfactorily—and the hitch never fails to operate correctly.

Complete with chilled moldboards, chilled shares, jointers or rolling colters, either two or three-horse hitch, \$105; with steel moldboards, \$4 extra.

## Wiard Road or Contractors' Plow No. 69

OUR LEADER



We guarantee the steel beam on this Plow against breakage for one year.

Price with forged steel point \$62

This Plow is intended for use with either animal power, a traction engine, or road-roller. Weight, with clevis, 315 pounds. For all road or contractors' work—for tearing up cobblestones and macadam—it can be used as a perfect rooter and pavement Plow by simply removing the steel wing below the moldboard—thus making a two-in-one Plow for all-round work. Ordinarily, the contractor has one Plow for general purpose or furrow work and another Plow for rooter work or tearing up old pavements. This No. 69 does the work of both and answers any and all purposes, means a less investment and keeping in stock extra parts for one Plow only.

## Wiard Road or Contractors' Plows Nos. 64, 65, 66 and 67

**No. 64**, with steel beam, is a light Plow intended for road-repair work. It has excellent turning qualities and will hang to the ground on a hard and difficult job. Weight, 160 pounds. Price, with forged steel point, \$38.

**No. 65**, with cast-iron beam, is a medium-weight Plow intended for general contracting work. Weight, 200 pounds. Price, with cast-iron point, \$29.75; with forged steel point, \$34.75. **No. 65**, with steel beam and forged steel point, \$48.25.

**No. 66**, with cast-iron beam, is built with extra-heavy construction and reinforcements throughout, and is intended for heavy work where weight is desired and the utmost strength is necessary. Weight, 250 pounds. Price, with cast-iron point, \$34.25; with forged steel point, \$39.

For severe service the steel point should be used, as it can be welded and drawn by a blacksmith.

**No. 67. Rooter—Four- or Six-Horse.** With cast-iron beam. This Plow has great strength and is adapted to contractors' work and for tearing up cobble-stone or macadam pavements. Weight, 250 pounds. Price, with forged steel point, \$39.

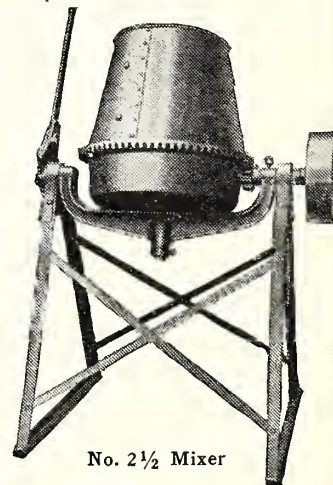
## The Jumbo Concrete Mixer

Have you ever figured out just how much time and money a good Concrete-Mixer would save you?

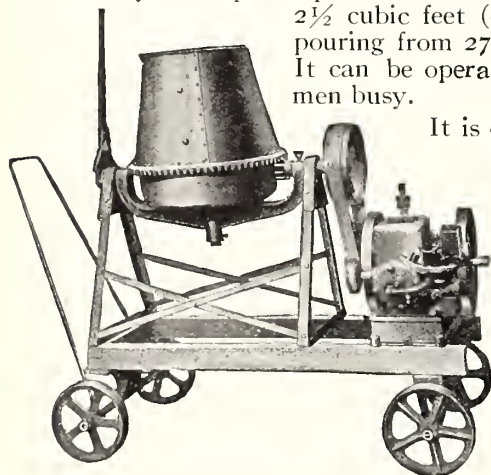
A Jumbo, for example, with a squad of four men, will do the work of from 8 to 10 men at hand-mixing, which means a saving of at least \$15 a day—and a better mix can be obtained.

The Jumbo was designed, after months of careful study, by experienced engineers. Their object was to develop a Mixer, simple in design, and yet rugged enough to hold up for years of constant service.

**No. 2½**, shown at the right, meets the requirements of the farmer or contractor who already has a power plant of one horse power or over. It has a capacity of 2½ cubic feet (one wheelbarrow load) and is capable of pouring from 27 to 45 cubic yards of concrete per day. It can be operated by one man but it will keep four men busy.



No. 2½ Mixer



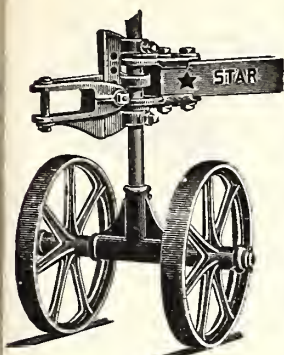
No. 2½FS Outfit

It is easy to load and easy to dump. Worked to capacity it will mix one batch a minute and mix it thoroughly. There will be no weak or porous spots in the finished job as is too often the case when the old unscientific method of hand-mixing is used.

Here are but a few of the jobs on which the Jumbo will show a profit: sidewalks, silos, foundations, cisterns, hog houses, barn floors, manure pits, storage cellars, fence posts, drinking troughs, rough plastering, septic tanks, and culverts.

A rugged reliable Mixer for the farmer and contractor. Price \$27.

**Jumbo No. 2½FS Outfit** is a complete mixing unit easily transferred from one job to another and ready for operation the minute it is placed in position. It consists of the Jumbo Mixer, mounted on a portable truck with the 1¾ horsepower Little Jumbo Engine. Price \$92. Prices on larger outfits quoted on request. Ask for Special Circular.



Fore Truck

The Star Disc Harrow contains all features of any importance in a Disc Harrow and includes, besides, many advantages and conveniences among which we mention the following:

**Frames and Braces.** The strong channel-steel frame and braces that hold both ends of each gang down to their work, and at the same time give the desired flexibility.

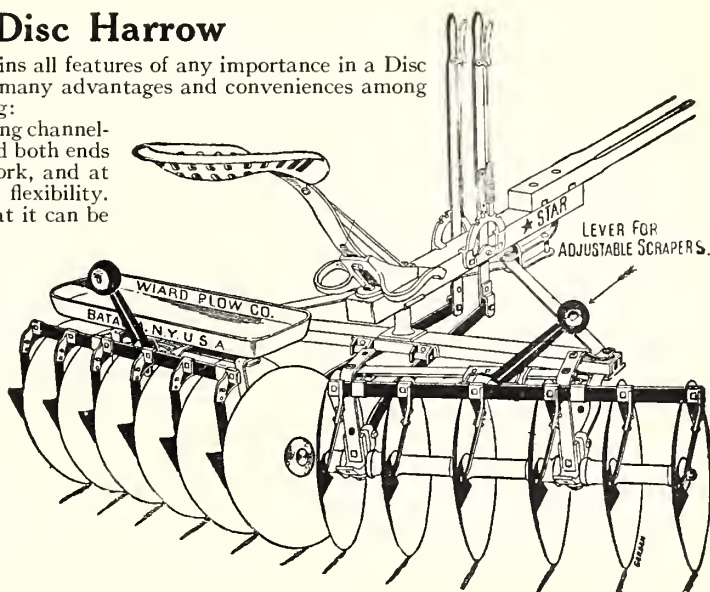
**Seat.** A seat so arranged that it can be adjusted for a light or heavy driver and all excess of weight taken off the horses' necks.

**Pole.** A pole so raised that the whiffletrees can be hung under it where they belong without any inconvenience.

**Rollers.** Anti-friction rollers over the draw irons, by which the gangs can be placed at any angle without strain or friction and with least power.

**Three-Horse Offset.** This offset is bolted to the short or rear part of the pole and extends to the right, the long pole being then bolted to the right-hand side of the offset; this brings the middle horse directly in the center of draft and no side draft results.

**Complete Machine.** The whole is excellently finished and made with every modern improvement and convenience, and is operated with greatest ease for man and team.

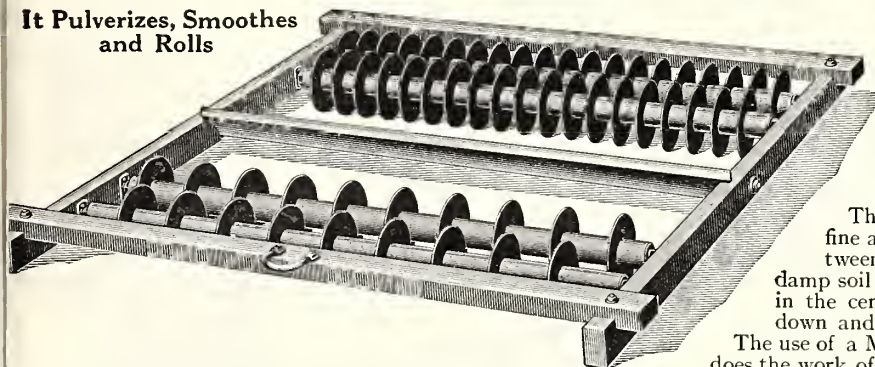


| Width | No. of Discs | Sizes of Discs | Description              | Equipments<br>Furnished | Without Steel<br>Weight Boxes | Add for Steel<br>Weight Boxes |
|-------|--------------|----------------|--------------------------|-------------------------|-------------------------------|-------------------------------|
| 3 ft. | 6            | 16 in.         | 1-horse.....             |                         | \$41 75                       | \$3 00                        |
| 4 ft. | 8            | 16 in.         | Small 2-horse.....       | 2-horse                 | 44 00                         | 3 00                          |
| 5 ft. | 10           | 16 in.         | Light 2-horse.....       | 2-horse                 | 47 50                         | 3 00                          |
| 6 ft. | 12           | 16 in.         | 2- or 3-horse.....       | 2- or 3-horse           | 52 50                         | 3 00                          |
| 7 ft. | 14           | 16 in.         | Heavy 2- or 3-horse..... | 2- or 3-horse           | 57 00                         | 3 50                          |
| 8 ft. | 16           | 16 in.         | Heavy 2- or 3-horse..... | 2- or 3-horse           | 61 25                         | 3 50                          |
| 5 ft. | 10           | 18 in.         | 2-horse.....             | 2-horse                 | 51 00                         | 3 00                          |
| 6 ft. | 12           | 18 in.         | Heavy 2- or 3-horse..... | 2- or 3-horse           | 56 75                         | 3 00                          |
| 7 ft. | 14           | 18 in.         | Heavy 2- or 3-horse..... | 2- or 3-horse           | 62 75                         | 3 50                          |
| 8 ft. | 16           | 18 in.         | 3- or 4-horse.....       | 3- or 4-horse           | 68 50                         | 3 50                          |

All of above prices are for Harrows with scrapers and long poles, without fore trucks and neck-yokes. If neck-yoke is wanted, add \$1 to above prices. Harrows with fore truck instead of long pole, \$6.75 extra; with both fore truck and long pole, \$9 extra. Fore truck when purchased separately, \$10. No extra charge for three-horse equipment. Ask for special circular.

## Meeker Smoothing Harrow

**It Pulverizes, Smooths  
and Rolls**



**MAKES THE HEAVIEST SOIL  
FINE AND SMOOTH**

The Meeker Smoothing Harrow is a perfect pulverizing and smoothing Harrow and land-roller combined.

As the illustration shows, it has four sets of rollers containing 46, 58 or 82 discs, depending upon the size, the discs being set so as to overlay or meet.

These discs grind up all lumps, leaving the soil fine and smooth. The discs of one roller work between those of the other. This prevents clogging in damp soil and makes the seed-bed very fine. The board in the center, set at an angle, can be adjusted up and down and serves as a leveler.

The use of a Meeker Harrow saves the work of raking, and does the work of a dozen men. As one experienced farmer re-

marks in telling how he prepared an onion bed, "once lengthwise and once crosswise will usually fit a field in better shape than many times over with any other tool." After the Meeker Harrow has gone over the land it looks as if a garden rake had been used.

Every farmer who has one or more acres of fine seed under cultivation needs a Harrow that eliminates hand-raking—one that makes the soil as fine as dust. No matter what kind of soil it is the Meeker Harrow prepares it perfectly for fine seeding—a perfection that no other implement approaches.

### PRICES

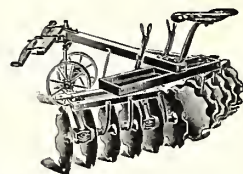
|  |         |  |         |
|--|---------|--|---------|
| 4-ft. 6-in. x 4-ft. Harrow, with 46 8-in. discs, 175 lbs.....  | \$26 25 | 8-ft. x 6-ft. Harrow, with 82 8-in. discs, 300 lbs.....  | \$40 50 |
| 6-ft. 8-in. x 6-ft. Harrow, with 58 8-in. discs, 200 lbs.....  | 29 25   | 8-ft. x 6-ft. Harrow, with 82 10-in. discs, 350 lbs..... | 46 50   |
| 6-ft. 8-in. x 6-ft. Harrow, with 58 10-in. discs, 250 lbs..... | 35 50   |  |         |

Also a very valuable implement for golf-courses. Ask for special circular.

**Clark**  
"CUTAWAY"

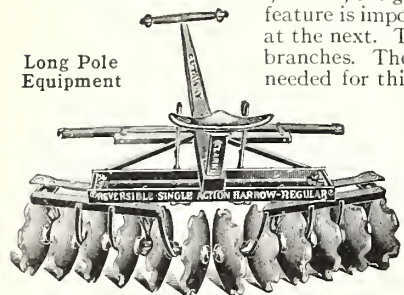
## Reversible Single-Action Harrow

Practical simplicity is the keynote in the design of the Clark "Cutaway" Single-Action Harrow. The head is built directly on top of the gangs, with the tongue, seat, braces, and levers all fastened to it, thereby making the discs carry the entire weight of the machine. This construction gives such perfect balance that there is practically no weight on the horses' necks, and makes the use of a tongue truck optional with the user. Without a tongue truck the hitch is placed back close to the machine and the draft is the very minimum. The "Cutaway" Single-Action Harrow is reversible, that is, the gangs can be swung end for end, so that the soil may be thrown either out or in. This reversible feature is important to the orchardist. He can throw the soil toward his trees at one cultivation and away at the next. The Single-Action Harrow Extension enables the orchardist to cultivate under low-spreading branches. The Extension Head Harrow can also be closed up for regular field-work, no extra parts being needed for this. Sizes up to 14 feet wide. Write for special circular.



Tongue Truck Equipment

Long Pole Equipment



### REGULAR HEAD

| Size    | Hitch                  | Width cut | Weight        | Price   |
|---------|------------------------|-----------|---------------|---------|
| A-5. 10 | 16-in. discs, 2-horse, | 5 ft.     | 290 lbs. .... | \$41 00 |
| A-6. 12 | 16-in. discs, 3-horse, | 6 ft.     | 340 lbs. .... | 46 00   |
| X-5. 10 | 18-in. discs, 2-horse, | 5 ft.     | 345 lbs. .... | 44 50   |
| X-6. 12 | 18-in. discs, 3-horse, | 6 ft.     | 425 lbs. .... | 53 00   |

### EXTENSION HEAD

| Width cut | Weight        | Price   |
|-----------|---------------|---------|
| 7 ft.     | 315 lbs. .... | \$43 00 |
| 8 ft.     | 390 lbs. .... | 49 00   |
| 7 ft.     | 380 lbs. .... | 47 00   |
| 8 ft.     | 455 lbs. .... | 55 00   |

If Tongue Truck is wanted instead of the Long Pole, add \$7 to above prices.  
If both Tongue Truck and Long Pole are wanted, add \$9 to above prices.

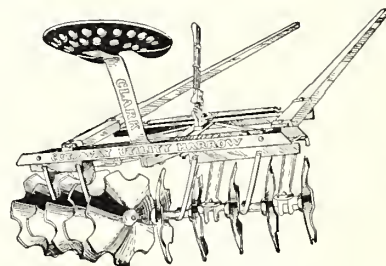
**Clark**  
"CUTAWAY"

## Utility One-Horse Harrow

Many farmers need a One-horse Disc Harrow and go without it simply because they cannot find a machine that is fit to use with one horse—most of them are too heavy. The Utility Harrow is one of the five special One-horse Clark "Cutaway" Disc Harrows built expressly to meet one-horse requirements.

The Utility Harrow is ideal for the nurseryman, market-gardener, florist, or general farmer; it is suitable for cultivating small fruit trees, for cultivating berries or for preparing seed-beds. While light and easy to handle, it is very strong and does a good job.

Frame is of angle steel; gangs are reversible; 10 14-inch cutlery steel, forged-edge discs (cutout or solid same price) cutting 4 feet wide. Weight 200 pounds. Price \$30.



**Clark**  
"CUTAWAY"

## Double-Action Disc Harrows

This machine is built with all four gangs attached to *one unit main frame* which holds the rear discs so they cut and pulverize the soil between the furrows cut by the front discs. All the soil over which the machine passes is thoroughly worked and the surface left level. This Clark "Cutaway" Double-Action Harrow constantly works at leveling the ground, cutting down the high places, filling in the hollows, leaving a seed-bed in both places.

The Clark "Cutaway" Double-Action Harrow is well known for its light draft. It is built very compact, so the distance from the hitch to the rear end of the machine is about one-half the length of the load in tandem or trailing-type Harrows. There is no tongue truck as there is absolutely no use for it. This further helps reduce draft and also saves expense.

The discs are the well-known Clark "Cutaway" forged-edge cutlery steel discs. Either cutout or solid discs will be furnished at the same price; cutout discs are supplied unless the other is specified. Bearings are the famous Clark hardwood oil-soaked bearings.

The jointed pole prevents neck weight and may be removed in one minute, making it possible to use the Harrow either as a tongueless or a tongue machine.

The Clark "Cutaway" Double-Action Harrow, Extension Head, is similar to the regular machine illustrated but the gangs may be extended out beyond the team for orchard cultivation. They close up for general work.

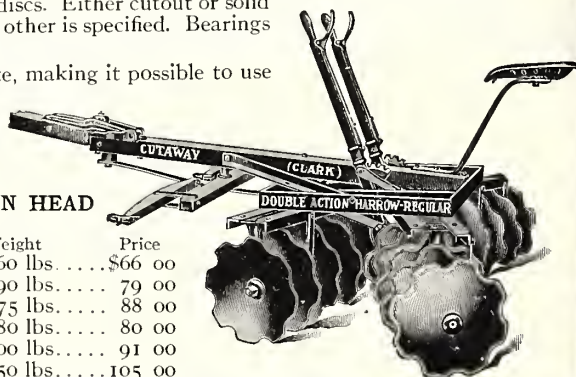
### REGULAR HEAD

| Size    | Hitch                  | Width cut | Weight        | Price   |
|---------|------------------------|-----------|---------------|---------|
| A-4. 16 | 16-in. discs, 2-horse, | 4 1/2 ft. | 440 lbs. .... | \$62 00 |
| A-5. 20 | 16-in. discs, 3-horse, | 5 1/2 ft. | 555 lbs. .... | 75 00   |
| A-6. 24 | 16-in. discs, 4-horse, | 6 1/2 ft. | 630 lbs. .... | 83 00   |
| X-4. 16 | 18-in. discs, 3-horse, | 4 1/2 ft. | 560 lbs. .... | 77 00   |
| X-5. 20 | 18-in. discs, 3-horse, | 5 1/2 ft. | 655 lbs. .... | 86 00   |
| X-6. 24 | 18-in. discs, 4-horse, | 6 1/2 ft. | 815 lbs. .... | 99 00   |

### EXTENSION HEAD

| Width cut | Weight        | Price   |
|-----------|---------------|---------|
| 6 ft.     | 460 lbs. .... | \$66 00 |
| 7 ft.     | 590 lbs. .... | 79 00   |
| 8 1/2 ft. | 675 lbs. .... | 88 00   |
| 6 ft.     | 580 lbs. .... | 80 00   |
| 7 ft.     | 700 lbs. .... | 91 00   |
| 8 1/2 ft. | 850 lbs. .... | 105 00  |

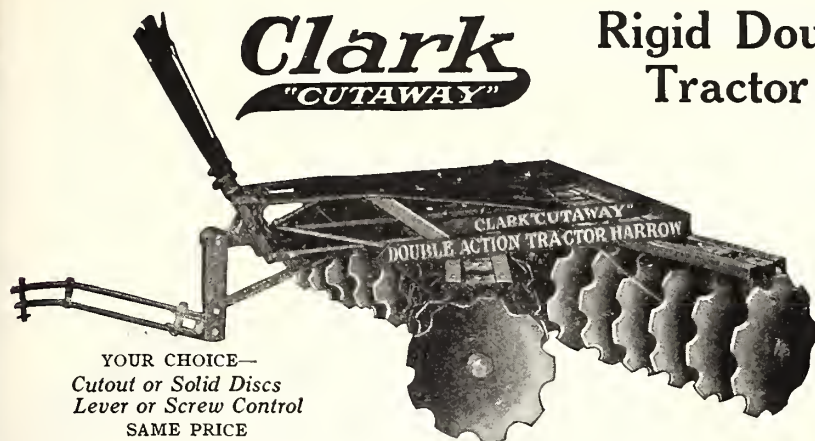
If two-horse hitch is wanted in place of three, or three-horse hitch in place of four, deduct \$1 from the above prices.  
Descriptive catalogue and prices on other sizes of double-action and reversible single-action Harrows mailed on request



# Clark

"CUTAWAY"

## Rigid Double-Action Tractor Harrow



YOUR CHOICE—  
Cutout or Solid Discs  
Lever or Screw Control  
SAME PRICE



*This Harrow easily turns corners as short as is possible to turn with ordinary tractor without any side pulling on the harrow or piling up of dirt.*

This Harrow has a unit frame of angle steel which holds the rear discs firmly in position to cut midway between the cuttings made by the front discs. By this means the ground is cut every 3 inches, and left thoroughly pulverized and level. This construction also forces the front and rear discs to cut exactly the same depth.

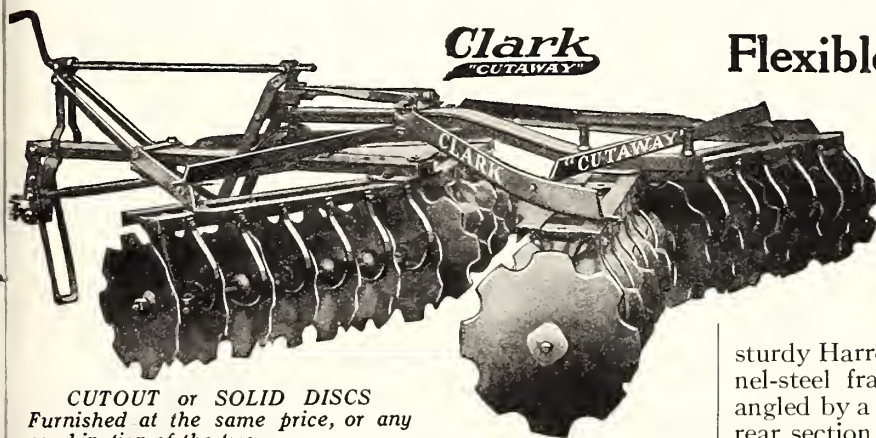
The pole is made of channel steel and there is a new improved flexible steel hitch. The hitch is adjustable to any tractor and a perfect line of draft can always be maintained. The Harrow follows the tractor perfectly.

Angling of the gangs is done by two levers placed on the end of the stub pole where they can be reached by the operator from the tractor seat. Each lever controls a set of front and rear gangs. This is important, especially in orchard work, where short turns are necessary at ends of rows. Shifting of gangs is easily done while the tractor is in motion. Screw control can be furnished instead of levers at the same price.

The discs on these Tractor Harrows, as on all Clark "Cutaway" Harrows, are made of cutlery steel with the edges forged sharp. These discs are made in the "Cutaway" factory; farmers say they outlast two or three sets of ordinary discs. Either cutout or solid discs will be furnished at the same price, or any combination of the two types of discs can be furnished on a Harrow. The bearings are of hardwood, oil-soaked, and enclosed in dust-proof boxing. Years of experience have proved these bearings to be the best for Disc Harrows. Oiling is done by means of dust-proof spring cap oil-cups.

### SIZES AND SPECIFICATIONS

| Size | No. of Discs | Diam. of Discs | Width of Cut | Weight        | Price   |
|------|--------------|----------------|--------------|---------------|---------|
| A-6. | 24           | 16 in.         | 6½ ft.       | 790 lbs. . .  | \$97 00 |
| A-7. | 28           | 16 in.         | 7½ ft.       | 910 lbs. . .  | 105 00  |
| X-5. | 20           | 18 in.         | 5½ ft.       | 675 lbs. . .  | 92 00   |
| X-6. | 24           | 18 in.         | 6½ ft.       | 835 lbs. . .  | 102 00  |
| X-7. | 28           | 18 in.         | 7½ ft.       | 965 lbs. . .  | 110 00  |
| X-8. | 32           | 18 in.         | 8½ ft.       | 1085 lbs. . . | 140 00  |



CUTOUT or SOLID DISCS  
Furnished at the same price, or any  
combination of the two.

Farmers who want a genuine Clark "Cutaway" Disc Harrow but prefer the flexible type are very enthusiastic about this Harrow.

There is a special line of Heavy Service Tractor Harrows for extreme conditions and extra heavy tractors. Folder sent on request.

## Flexible DOUBLE-ACTION TRACTOR HARROW

This new addition makes the Clark "Cutaway" the most complete line of Tractor Disc Harrows on the market. The Flexible Tractor Harrow gives all the flexibility that can be desired and at the same time retains many of the valuable and exclusive Clark "Cutaway" features. This is an unusually

sturdy Harrow with its heavy angle-steel and channel-steel frame construction. All four gangs are angled by a powerful crank and screw control. The rear section can be quickly removed by taking out three bolts and the front section of the Harrow used alone if desired.

### SIZES AND SPECIFICATIONS

| Size | No. of Discs | Diam. of Discs | Width of Cut | Weight       | Price    |
|------|--------------|----------------|--------------|--------------|----------|
| A-6. | 24           | 16 in.         | 6½ ft.       | 755 lbs. . . | \$100 00 |
| A-7. | 28           | 16 in.         | 7½ ft.       | 860 lbs. . . | 108 00   |
| X-6. | 24           | 18 in.         | 6½ ft.       | 850 lbs. . . | 109 00   |
| X-7. | 28           | 18 in.         | 7½ ft.       | 950 lbs. . . | 118 00   |

Clark "Cutaway" Harrows have been continuously manufactured for more than 50 years. They are the best that can be produced both in design and construction.

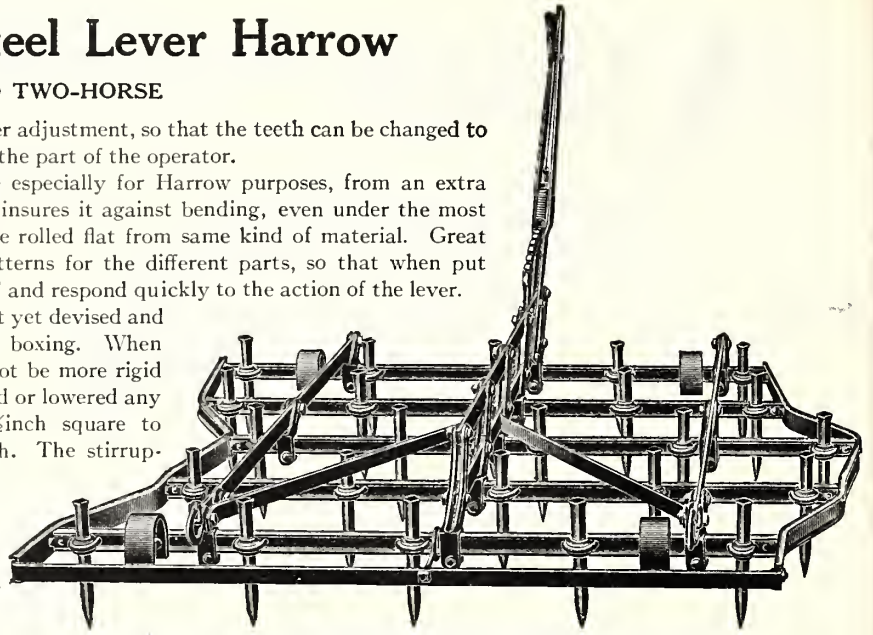
## "Columbian" Steel Lever Harrow

### ONE- AND TWO-HORSE

The Columbian Harrow is made with lever adjustment, so that the teeth can be changed to any slope quickly and with little exertion on the part of the operator.

The main-bars are U-shaped, and made especially for Harrow purposes, from an extra quality of steel, very high in carbon, which insures it against bending, even under the most severe strain. The cross-bars and braces are rolled flat from same kind of material. Great pains have been taken in preparing the patterns for the different parts, so that when put together they will be free from "lost motion," and respond quickly to the action of the lever.

The tooth-clamp is without doubt the best yet devised and consists of stirrup bolt and back and front boxing. When fastened with this device, the teeth would not be more rigid if a part of the bar itself. Teeth can be raised or lowered any distance, and any size can be used, from  $\frac{1}{2}$  inch square to  $\frac{3}{8}$  inch square. Furnished with  $\frac{9}{16}$ -inch teeth. The stirrup-bolt clamp is fixed to take the common stock teeth carried by all dealers. It is securely braced and nicely finished. One-horse, with 25 teeth, one section, \$13; two-horse, with 50 teeth, two sections, \$23; two-horse, with 60 teeth, two sections, \$25.

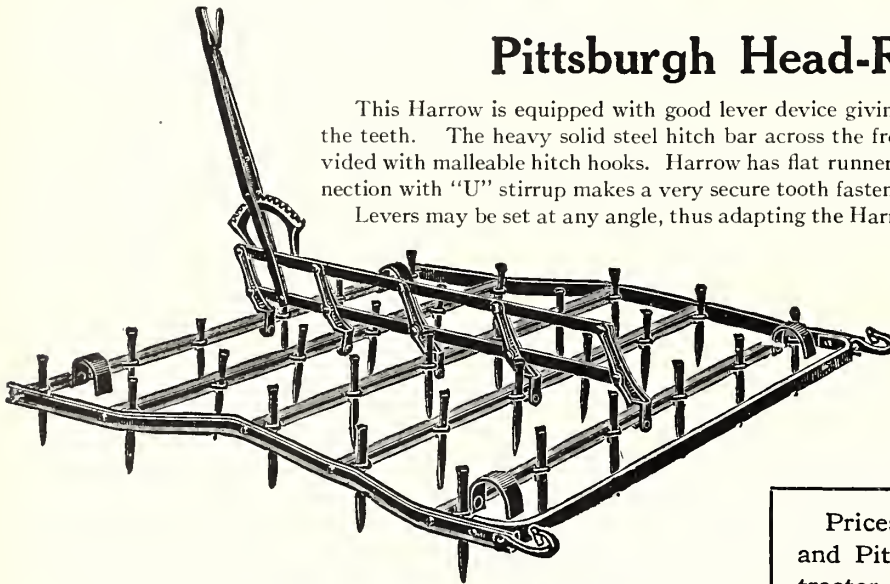


Showing 25-Tooth Section of Harrow

## Pittsburgh Head-Rail Harrow

This Harrow is equipped with good lever device giving instant adjustment and desired slant to the teeth. The heavy solid steel hitch bar across the front braces the Harrow securely and is provided with malleable hitch hooks. Harrow has flat runners, and the close-fitting back boxing in connection with "U" stirrup makes a very secure tooth fastening.

Levers may be set at any angle, thus adapting the Harrow to general purpose work or for finishing and smoothing operations. It will also answer the purpose of a weeder for the first cultivation of corn and potatoes. Furnished with  $\frac{9}{16}$ -inch teeth. One-horse, with 25 teeth, one section, \$12; two-horse, with 50 teeth, two sections, \$20; two-horse, with 60 teeth, two sections, \$21.50.



Showing 30-Tooth Section of Harrow

Prices on larger sizes of Columbian and Pittsburgh Head-Rail Harrows for tractor use will be quoted on request.

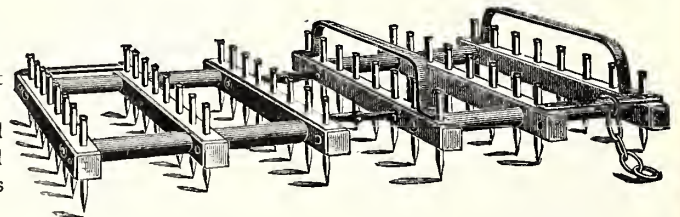
## Malta Spike-Tooth Harrow

The Malta Wood-Frame Harrows are built of the very best materials throughout.

The wood work is of the best quality and of thoroughly seasoned white oak. The frames are closely jointed, and made secure and solid by steel rods passing entirely through them. All tooth bars are riveted at each end.

The hinges work free, allowing Harrow to adapt itself to uneven ground. Runners and teeth are of the best quality steel.

On account of being better made and better finished than other Harrows of this style on the market, they are having the preference. One-horse, with 32 teeth, one section, with runners, \$10; two-horse, with 48 teeth, two sections, like above cut, \$16.



## Iron City Pipe Bar Lever Harrow

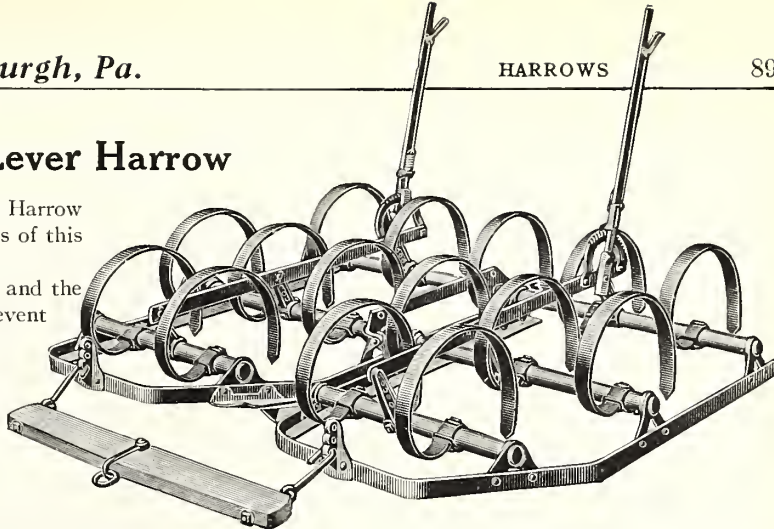
The Iron City Spring-Tooth Steel-Frame Lever Harrow shown here represents one of the most popular types of this class of Harrows.

The Iron City has angle steel frame, runner style, and the front of the Harrow is constructed with a view to prevent the gathering of trash.

Renewable steel shoes are bolted to the under side of all frame angles, and can be replaced at moderate expense.

The tooth bars are steel pipe, to which the teeth are bolted and held securely with the assistance of spanner clips.

All teeth are carefully tested before shipment and are guaranteed against defects. Two-section, with 15 teeth, weight 225 lbs., \$24.50; two-section, with 17 teeth, weight 240 lbs., \$26. Prices on three- or four-section Harrows will be quoted on request



## Pittsburgh Perry Wood-Frame Harrow

Steel Lined, Guarded, Protected Bolt Heads,  
Perfect Tooth Seat, Adjustable Hitch

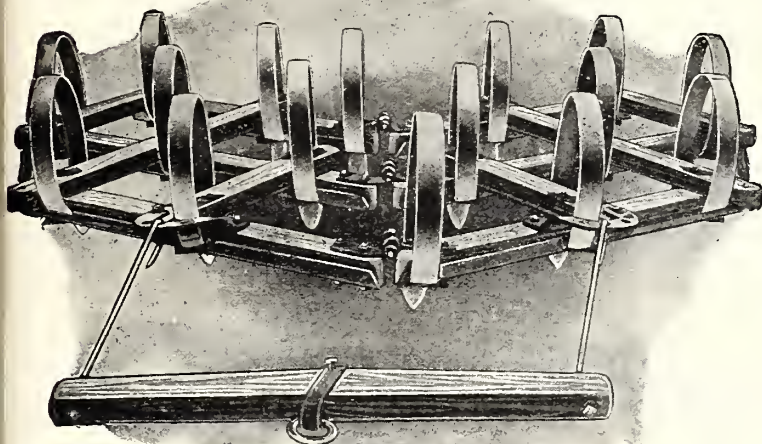
### THE BEST OF THE "WOOD FRAMES"

The best Wood-Frame Harrow on the market. Beams full 3 inches; linings  $\frac{1}{8}$ -inch angle steel; bolts  $\frac{3}{8}$ -inch; teeth are full length and weight, tempered in oil and fully warranted; our tooth fasteners are channel steel. Steel braces support and strengthen the outer end of the Harrow.

These Harrows are well made of best oak and hinged properly so that they will not buckle in the middle, but ride evenly, pulling all teeth in the ground at about an even depth.

Teeth are made from open-hearth, high-carbon spring steel, oil-tempered and tested.

Price, with 16 teeth, weight 191 lbs., \$19.50; with 18 teeth, weight 209 lbs., \$20.50.



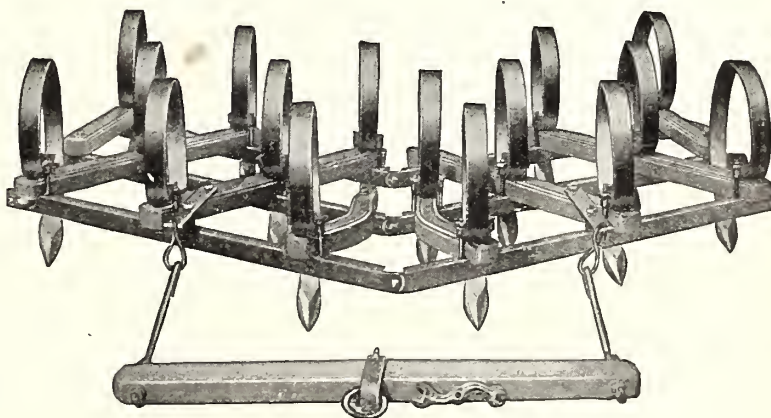
## Pittsburgh Combination Harrow

The illustration tells the story—a strong, simple, and efficient Harrow.

**Beams.** The under side of the Pittsburgh Combination Harrow is constructed of high-carbon angle steel beams, and the upper side of best oak beams, so there is no wear against the wood parts.

**Teeth.** Best spring steel, formed so that the pitch can be changed to suit the operator. They fasten on top of the frame and the bolt heads are protected so they will not wear off. Malleable Iron Tooth Clips and  $\frac{3}{8}$ -inch bolts.

**Stump guards** (or braces) placed to protect the frame and make it perfectly rigid. With 16 teeth, weight 161 lbs., \$19.50; with 18 teeth, weight 174 lbs., \$20.50.





## Wiard Giant Spring-Tooth Harrows

Built Especially for Tractors

These Harrows are the strongest, heaviest, and most efficient tools of the kind on the market, and have received the unqualified endorsement of every farmer who has used them. They are furnished in both Shoe and Wheel Type with any number of sections, each section containing 10 teeth and covering an actual space of 42 inches wide. Allowing 2 inches play between sections, a four-section Harrow would cover an actual space 14½ feet wide, and would weigh 740 pounds for Shoe Harrow, or 844 pounds for Wheel Harrow.

The Shoe Type Harrow is built with strong tooth-bar supports that give unusual clear-

ance for trash or stone when used with teeth deeply in the earth. It has removable high-carbon wheel shoes to protect the frame.

The Wheel Harrow is built with heavy high wheels, assuring the same clearance as on Shoe Harrows. All wheels interchangeable and have chilled hubs and chilled bearings. The rear wheels are stationary and the front is a caster wheel.

Price either style, 10-tooth section, \$23. Price includes necessary draw-bar for number of sections ordered.

ASK FOR SPECIAL CIRCULAR

## "Acme" Harrow

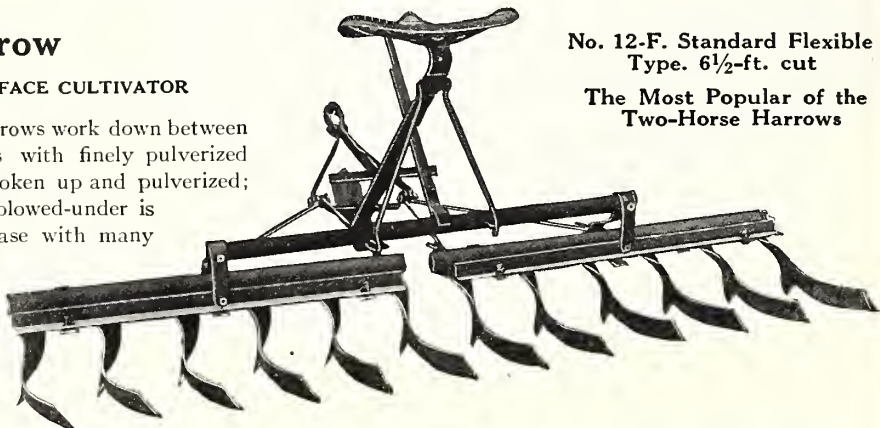
A PULVERIZING HARROW AND SURFACE CULTIVATOR

The colters on "Acme" Pulverizing Harrows work down between the furrow slices, filling the air-spaces with finely pulverized soil—lumps and clods are thoroughly broken up and pulverized; trash or stubble that has been carefully plowed-under is not dragged to the surface as is the case with many other types of Harrows but is left beneath the surface where it rapidly rots and adds humus to the soil. Just the Harrow to help destroy corn borers since the colters work the plowed under stubble, sod, etc., along with the borers, deep into the plowed depth and the corn borers will be destroyed by natural enemies before they can get back to the surface. The seed-bed prepared by the "Acme" Harrow is well compacted so that the seed will germinate rapidly; the surface is finely mulched so that the moisture is conserved.

Everything a Harrow ought to do, the "Acme" does. It cuts, crushes, levels, turns, smooths all in one operation, thus completely fitting the seed-bed for the seed. We have records of colters in use twelve years before being replaced with new ones. The frame of the Harrow will last indefinitely, and after the colters have been worn out new ones can be procured which will give you a Harrow just as good as when it originally left the factory.

In addition to flexible frame, Type F Harrows we offer Harrows of rigid-frame construction like Nos. 6, 8, 12 priced below.

We have sold the "Acme" Harrow for many years and customers who have worn out their second Harrow tell us that they can find no other Harrow that can do the work of the "Acme" in preparing the ground for the seed.



No. 12-F. Standard Flexible  
Type. 6½-ft. cut

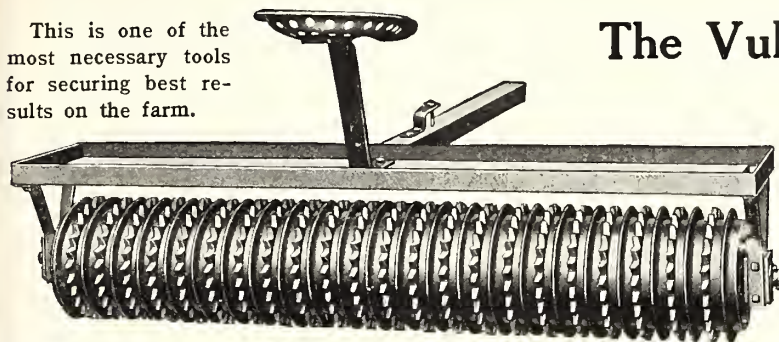
The Most Popular of the  
Two-Horse Harrows

| No.  | Weight   | Width       | Description                    | Standard Type |
|------|----------|-------------|--------------------------------|---------------|
| *6   | 77 lbs.  | 3 ft.       | 1 horse, 1 section, 6 colters  | \$16 00       |
| *8   | 94 lbs.  | 4 ft. 4 in. | 1 horse, 1 section, 8 colters  | 22 25         |
| *12  | 112 lbs. | 6 ft. 6 in. | 2 horse, 1 section, 12 colters | 25 00         |
| 12-F | 124 lbs. | 6 ft. 6 in. | 2 horse, 2 section, 12 colters | 29 00         |
| 16-F | 151 lbs. | 8 ft. 6 in. | 2 horse, 2 section, 16 colters | 35 00         |

\*Rigid Frame.

Prices upon other sizes, also on Garden Tractor sizes, quoted on request

This is one of the most necessary tools for securing best results on the farm.



## The Vulcan Sprocket Pulverizer and Packer

To grow crops successfully, it is necessary to retain moisture in the ground; to accomplish this the top soil must be kept from crusting, and this can be done thoroughly and easily by using a Vulcan Sprocket Pulverizer.

The sprocket or spike-rings break the clods, and together with the solid discs, pulverize and pack the soil and prevent rapid evaporation.

For planting corn, this machine will prepare a better seed-bed than can be completed in any other in perfect condition for receiving the seed. Also, in preparing a seed-bed for alfalfa or other grain, it cannot be surpassed, and it is exactly suited for breaking the crust which forms on winter wheat. For rolling corn, we supply spacing collars so that some discs can be removed and the remainder held at the proper width.

Upon the Vulcan Sprocket Pulverizer, frame-bars and axles are heavy and amply strong enough to allow the use of weights necessary to do good work.

The tongue is not bolted across top of the frame, therefore, weight-pan is left unobstructed, making it possible to use rails or other long weights.

End brackets are in one piece, giving rigid connection. End bearings are made of maple, soaked in oil, and are reversible, therefore, will give long service.

The Vulcan Sprocket Pulverizer and Packer is strongly constructed throughout and will give you long and satisfactory service. It is made in the following sizes:

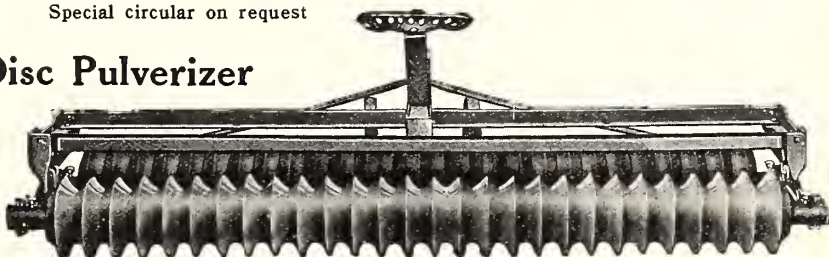
|   |         |  |          |
|---|---------|--|----------|
| 8-ft., Single Section. 920 lbs. ....    | \$67 50 | 15-ft., Three-Section. 1,815 lbs. .... | \$140 00 |
| 10-ft., Single Section. 1,028 lbs. .... | 86 00   | Doubletrees and Neckyoke extra .....   | 3 50     |
| 11-ft., Three-Section. 1,328 lbs. ....  | 97 50   |  |          |

Special circular on request

## Buch's Double Gang Disc Pulverizer

This tool has two gangs of iron discs which crush and cut lumps, pack out all air-spaces, and level the surface of the field, all in one operation.

The discs of the back gang come between those of the front gang so that no lumps are missed. This Pulverizer, with a harrow for bringing up the lumps to the top will make a perfect seed-bed in any soil. The discs of the front gang build up a set of ridges and the back gang, coming half way between, splits and works these ridges over, thus stirring the soil.



### PRICES:

8 ft.—21 front discs 15 in. diam., 22 rear 12 in.; weight 1,000 lbs. \$75.  
Fore carriage instead of long pole, extra \$7.50. Doubletrees and Neckyoke, extra \$3.

Prices on other sizes quoted on request

## Pittsburgh Steel Land Roller

Drums or rolls are made of heavy, 12-gauge high carbon steel, with pressed steel ends, and will not dent.

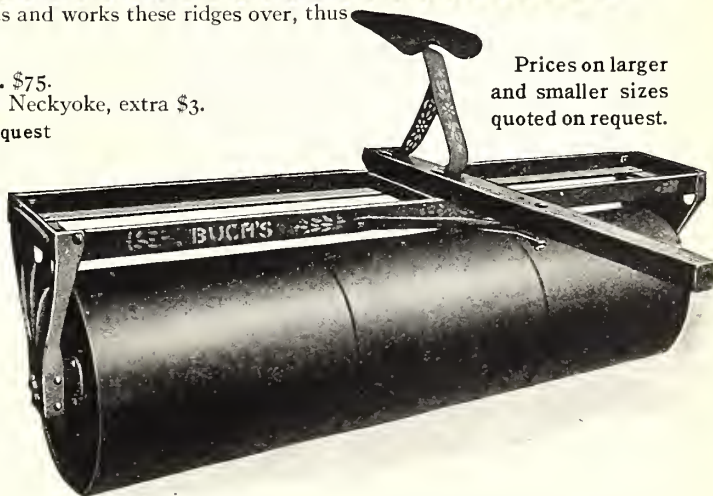
Axles are 1 5/8 inches in diameter; angles 2 1/2 x 2 1/2 x 1/4 inches.

Hangers are of 2 x 3/8 inches high carbon steel, with heavy cast tops, and regularly furnished with oil-soaked wood boxings.

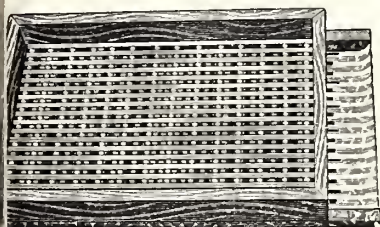
The frame is constructed so that it may be used as a weight-box should additional weight be required.

Pole sets on top of frame, thus enabling us to use shorter and more rigid hangers. The hitch is underneath the tongue, reducing the draft and neck weight to a minimum. 8-foot, 3 section, 24 inches in diameter. Weight 535 pounds, \$40.

Doubletrees and Neckyoke, extra \$3.



Prices on larger and smaller sizes quoted on request.



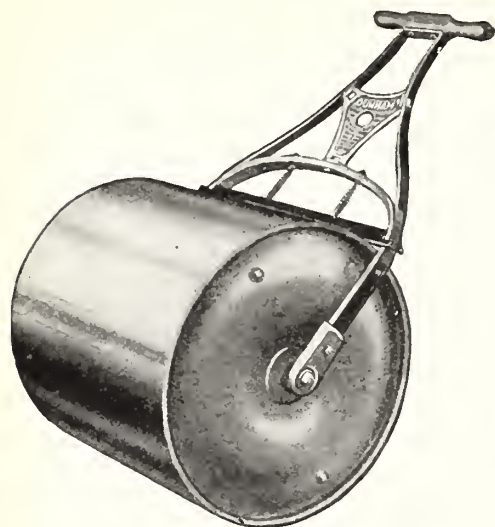
Capacity: 6 to 10 bushels per hour.  
Size 12 x 19 inches  
Price, \$1, postpaid, \$1.15

## Perfection Corn-Grader

A seed Corn-Grader has become a necessity in getting a uniform stand of corn. No planter will drop uniformly unless the seed is graded. Graded seed insures perfect dropping, stronger plants and increases the yield 5 to 15 bushels per acre.

There are four grades of corn on every ear. (1) The small kernels; (2) the large, odd-shaped kernels; (3) the broad kernels too thin for good seed; (4) the even-sized perfect kernels.

This Grader sorts them out in one simple operation. It has a special lower screen construction by which it gets four grades of corn. It has a guard on the lower screen to prevent the spilling of the corn while grading, and to enable all of the screen to act on the corn at once, thus making rapid work.



## Dunham Water-Weight Lawn Roller

This Roller has a steel drum into which water can be poured until the Roller is just the weight for the work at hand.

For soft lawns it will not need so much water, while for firm turf, tennis-court or drives it can be made as heavy as desired. When through rolling, all water is emptied out and the Roller is light enough to be easily handled and put in the basement or garage.

The drum is made of heavy steel plates, carefully welded to form a solid one-piece container for the water.

|       | Diameter<br>inches | Length<br>inches | Sec-<br>tions | Weight<br>empty | Weight filled<br>with water | Price   |
|-------|--------------------|------------------|---------------|-----------------|-----------------------------|---------|
| No. 5 | 18                 | 24               | 1             | 85 lbs.         | 265 lbs.                    | \$17 00 |
| No. 7 | 24                 | 24               | 1             | 110 lbs.        | 420 lbs.                    | 20 00   |
| No. 9 | 24                 | 32               | 1             | 130 lbs.        | 565 lbs.                    | 22 50   |
| No. 2 | 14                 | 24               | 1             | 60 lbs.         | 175 lbs.                    | 11 50   |
| No. 4 | 18                 | 24               | 1             | 82 lbs.         | 265 lbs.                    | 14 00   |

Nos. 5, 7, and 9 have roller bearings and handle brace as shown in cut.

Nos. 2 and 4 have plain bearings without arched brace between handles.

## Stevens Hand Fertilizer Distributor and Lime Sower

This Sower has been designed for small areas such as truck farms, country estates, lawns, home gardens, farms, golf courses, cemeteries, parks, nurseries and where the correct and scientific application of fertilizer is necessary.

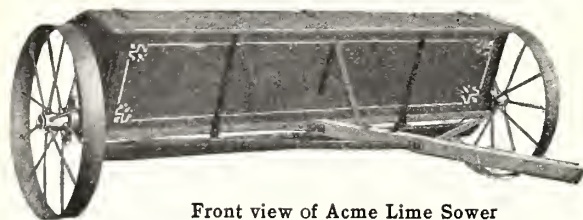
The Hand Sower, small, light, easily operated in close quarters, conveniently drawn by one man and well balanced, fills a need on the smaller place that no other Fertilizer Distributor can reach and will leave behind them no unsightly wheel-marks, whereas the Hand Sower leaves the lawn or green in perfect condition and top dressed in just the right manner.

Distributes perfectly all grades of commercial fertilizers, wood-ashes, lime, etc. Wood Hopper, 34 inches long, capacity  $1\frac{1}{2}$  bushels. Weight 85 lbs. Price \$25.



## Acme Lime and Fertilizer Sower

This machine, being mostly of steel construction, is very durable and simple, with few parts to wear out, and is guaranteed to give satisfaction



Front view of Acme Lime Sower

Steel hopper ends, angle steel base, independent wheel drive, with ratchet and throw-out device, rotary wing force feed, large steel wheels, 36 inches high, 4-inch tires.

The divided axle is made of  $1\frac{1}{4}$ -inch square steel. The end bearings are fitted with compression grease-cups and have encased felt washers to keep lime and grit from working into bearings. The center bearing is fitted with oil-tube—thus insuring a very easy running Spreader.

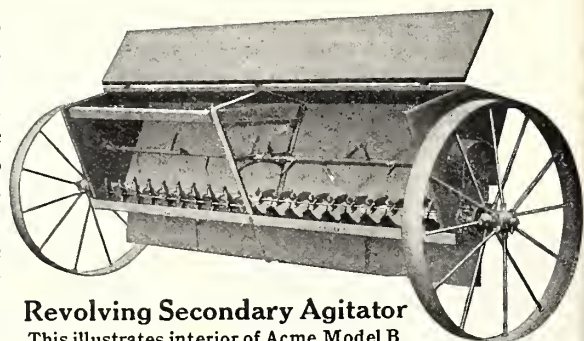
The feeds, 20 in all, are attached direct to the square axle and they are driven by this axle which is divided in the center and revolve with the axle, thus forcing the fertilizer out the discharge openings in bottom of hopper. The shifter levers on rear of hopper regulate the desired amount to be sown and are also used for shutting off openings in bottom entirely.

### PRICES

Model A, without Agitator. Weight, 425 lbs. \$67.50.

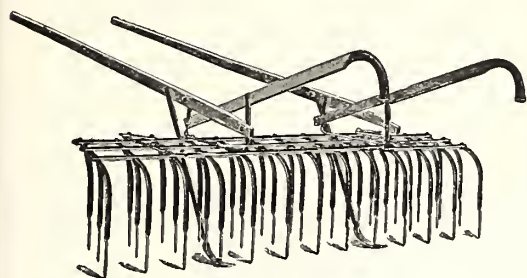
Model B, with Agitator. Weight, 510 lbs. \$77.50.

The Acme Lime Spreader is built in the standard 8-foot size, with capacity of 10 bushels. It will distribute evenly and accurately lime and ground limestone, commercial fertilizer, gypsum, ashes, nitrate of soda, etc., in amounts ranging from 150 to 8,000 pounds per acre, according to materials sown. There is no better Lime Sower made—you will say so after using one.



Revolving Secondary Agitator  
This illustrates interior of Acme Model B

The Acme Sower is furnished with or without a revolving agitator (Model B with) (Model A without). This agitator is desirable only when sowing damp materials which are inclined to bank or cake over the feeds, the agitator keeping the material loosened up so it has to fall down on the force feeds and insures a more even distribution.



## Hallock Walking Weeder

No successful farmer of today considers that his outfit of modern tools is complete unless he has a Weeder. The experience of the last few years has satisfied all users of this tool that it is one of the most important on the farm, and is an absolute necessity for best results. In its operation it works over and among the plants without injury, destroys all the small weeds, breaks up the crust, mellows the ground, and in this way puts the plants in best possible condition for rapid growth. The Weeder is substantially built from the best of materials. The teeth are located in three rows, and they are made of high quality steel all properly shaped for best work. Equipped with runners for transporting to and from the field. Made in two sizes.

8-foot, with 39 teeth.....\$13 00  
9-foot, with 45 teeth.....\$15 00

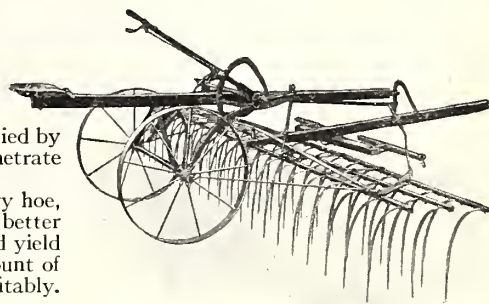
## Hallock Riding Weeder

### A PERFECT SURFACE CULTIVATOR

This Weeder is particularly recommended for the cultivation of potatoes, corn, wheat, oats, or any crop planted in rows any width apart. As soon as the crop is planted, the Cultivator and Weeder should be started on the field to prevent the crust from forming and to conserve the moisture underneath.

The teeth can be made to penetrate hard ground by spring pressure which is applied by the raising lever, or the teeth may be allowed to float in light soils. All the teeth penetrate at the same depth.

The Riding Weeder is much more practical than the spike-tooth drag or a rotary hoe, inasmuch that it will not injure the plant or its roots. Plants will thrive and do better during all periods of their growth when cultivated with this Weeder. The increased yield will in one season on a few acres pay for the machine, let alone the enormous amount of good which will be gotten out of other crops on which the Cultivator may be used profitably.



The draft of the Weeder is very light indeed. Two horses can very easily pull the machine all day long and do the best kind of work. The truck is so connected to the frame as to permit the teeth to travel independently of the truck in rolling fields or through dead furrows and other places where the field may not be level. The wheels on the Weeder are 30 inches high, with 3-inch tires, and the track is adjustable from 42 inches to 60 inches to fit the rows.

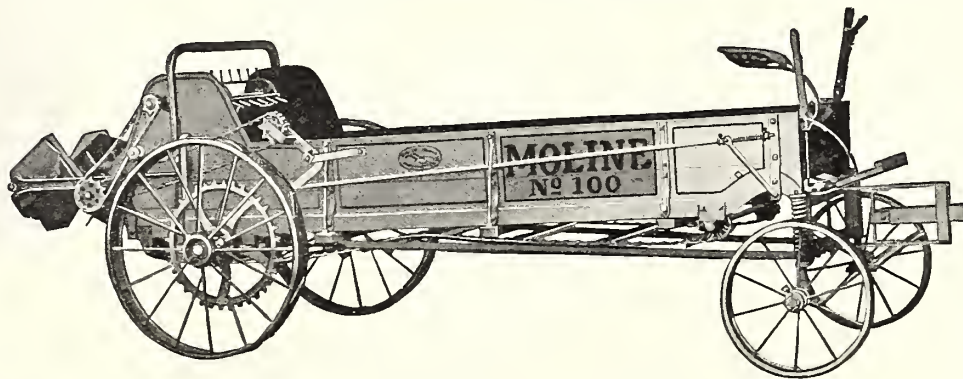
Width 12 feet. Price \$48.50.

## Moline No. 100 Manure Spreader

### SPREADS BETTER—LASTS LONGER

EASY TO  
LOAD

TIGHT  
BOTTOM



LIGHT  
DRAFT

EASY  
RUNNING

A miner takes wealth from the earth and puts nothing back.

A farmer takes plant-food from the earth in his crops, but returns it to the earth in the form of barnyard manure, legumes, and fertilizers. You can not continue to raise good crops unless you build up your farm, unless you use manure.

There is money in your manure-pile—save it, do not waste it. A Manure-Spreader is the best money-making machine a farmer can buy.

With two all-steel beaters and widespread distributor, the manure is thoroughly shredded and evenly distributed—the manure covers more ground surface and is more effective. The tapered box prevents clogging and reduces friction on the box sides; tight bottoms prevent loss of liquid manure; auto turn front axle permits making short square turn; low-down box is easy to load; self-aligning bearings lighten draft; cushion spring mounted relieves frame from twisting strains. Capacity with top boards, 70 bushels; without top boards, 50 bushels. Moline No. 100 Spreader is strongly built, of light weight and light draft.

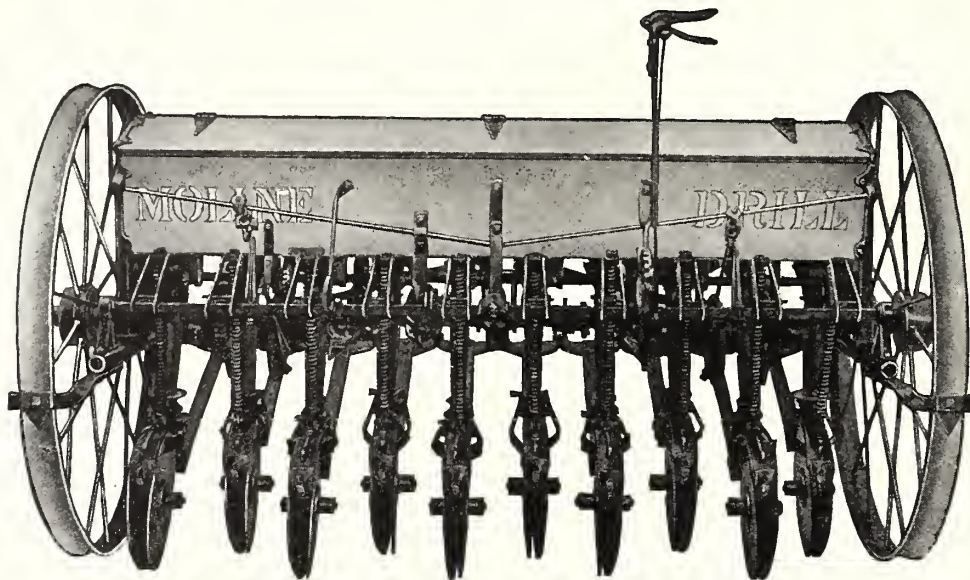
### PRICES

|   |          |  |        |
|---|----------|--|--------|
| With 2-horse Evener.....                | \$150 00 | Brake extra.....                                     | \$6 00 |
| With 3-horse Evener and Top Boards..... | 160 00   | Ask for special circular giving detailed description |        |

# Moline Fertilizer Grain Drills

DOUBLE DISC. SINGLE DISC. HOE

Bigger  
Crops  
with Less  
Seed



Even  
Seeding  
—  
Light  
Draft

Moline-Monitor Double Disc Drills save seed, increase the yield, and improve the grade of all grain crops. This has been demonstrated by many agricultural colleges and by thousands of farmers.

The Moline-Monitor is the original double disc. It deposits the seed at a uniform depth in the bottom of a wide, compact furrow with the downward turn of the discs. This insures even seeding and even growing.

## Forms Wide, Compact Furrows

The two discs which are beveled on the outer edges, come tight together at the front lower quarter, forming a knife or wedge edge. As the machine is drawn forward, the discs first cut the soil the same as a rolling coulter on a plow and then wedge or split the furrow open, raising and compressing the earth on either side, which conserves moisture and makes a wide furrow. Less seed is required in such a furrow, as it has plenty of room in which to stool.

## Uniform Seeding Depth

As the seed is dropped in front of the disc bearing with the downward turn of the discs, the discs aid gravity in carrying the seed to the bottom of the furrow. The discs on either side of the falling seed make it impossible for trash, dry top soil or anything else to get into the furrow before the seed. As the discs roll on, the moist earth which has just been displaced from the furrow falls back onto the seed before the dry surface dirt or trash falls in. Thus a uniform seeding depth is insured.

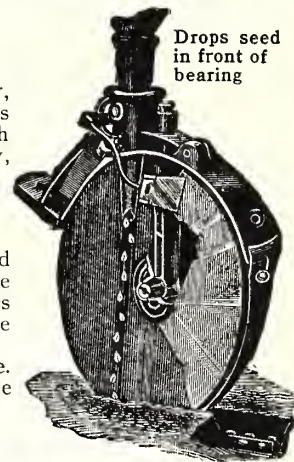
Every good seed sown with the Moline-Monitor Double Disc Drill grows; all sprout at the same time. This insures even growing and even maturing, obviating harvesting a crop, part of which is over ripe and part still in the milk.

## Bigger Crops with Less Seed

From the above it will be seen that the furrow-opener is the vital part of a grain drill and that the Monitor Double Disc will save losses from uneven seeding, crowding, uneven ripening, and lack of moisture.

## Moline-Monitor Furrow-Openers Interchange

Moline-Monitor furrow-openers, double disc, single disc, shoe and hoe, are all interchangeable on Moline-Monitor Grain Drills. Farmers frequently find that one type of furrow-openers may be better adapted to certain conditions than the ones ordinarily used. Instead of purchasing a new drill, all that is necessary is to get another set of furrow-openers.



Drops seed  
in front of  
bearing

## PRICES WITH FERTILIZER AND GRASS SEED ATTACHMENTS

### Double Disc Drills

|                                      |          |
|--------------------------------------|----------|
| 10 double discs, 7 inches apart..... | \$172 50 |
| 12 double discs, 7 inches apart..... | 192 50   |

### Hoe Drills

|                        |          |
|------------------------|----------|
| 10 x 7 Spring Hoe..... | \$155 00 |
| 12 x 7 Spring Hoe..... | 165 00   |

Prices on other styles and sizes quoted on request. Before you buy a grain drill ask for special catalogue giving full details, testimonials and guarantee.

Prices include Drag Chains and Seat.

## Sure Drop No. 5 Corn Drill

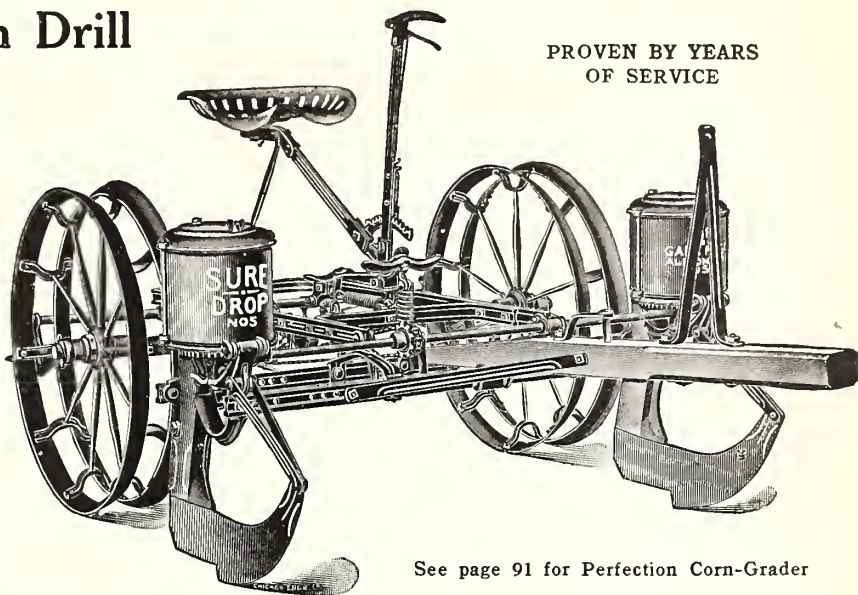
WITH EDGE DROP PLATES

The Sure Drop No. 5 is a two-horse machine for drilling corn, beans, and other similar crops that are grown in drilled rows. It is strictly a high-grade machine in every particular—as good as first-class material and skilled workmanship can make it. It is built almost entirely of steel and malleable iron, making it light, but especially strong and durable.

The Drill is adjustable from 28 inches to 44 inches between rows. By means of the three sets of plates which are regularly furnished and the 3-step sprocket wheel on the seed shaft, there are possible nine variations of the distance apart that seed can be dropped, varying from 6½ to 22 inches. Also special sprocket can be furnished for dropping closer than 6½ inches when wanted.

The Fertilizer Attachment is provided with a gate at the bottom of the hopper next to the spout. By raising or lowering this, various amounts of fertilizer are allowed to pass under and be delivered into the spout. The Fertilizer Attachment is thrown out of gear when the planter is raised, and thrown into gear again when the planter is lowered into the ground.

Furnished with 30-inch open-tire wheels. Planter is illustrated without the Fertilizer Attachment.



PROVEN BY YEARS  
OF SERVICE

See page 91 for Perfection Corn-Grader

### PRICES

|                                    |         |                                       |        |
|------------------------------------|---------|---------------------------------------|--------|
| Without Fertilizer Attachment..... | \$60 00 | Double-trees and Neckyoke, extra..... | \$3 50 |
| With Fertilizer Attachment.....    | 85 00   | Special booklet furnished on request. |        |

## Avery New Union Corn Drill

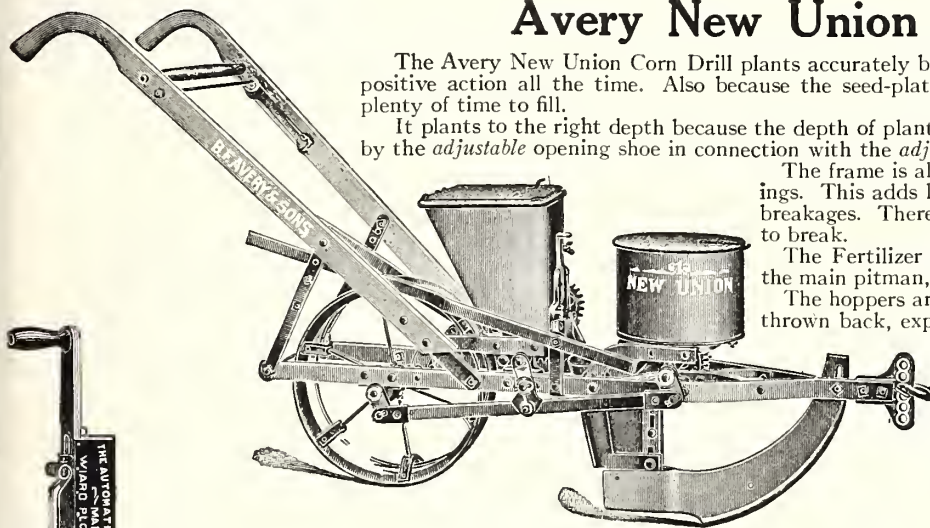
The Avery New Union Corn Drill plants accurately because the double pitman drive insures positive action all the time. Also because the seed-plates are extra large, giving all the holes plenty of time to fill.

It plants to the right depth because the depth of planting in any kind of soil can be regulated by the *adjustable* opening shoe in connection with the *adjustable* clevis.

The frame is all steel which eliminates the use of castings. This adds long life and freedom from troublesome breakages. There are no sprockets to clog up, no chains to break.

The Fertilizer Attachment is gear-driven direct from the main pitman, again eliminating sprockets and chains.

The hoppers are extra large and hinged so they can be thrown back, exposing all the gears, or can be lifted off the frame without using a tool. Planter is regularly furnished with a set of four plates. Pea and Bean Plates can be furnished at an extra charge of \$1. Price with Fertilizer Attachment \$25.



## The Wiard Corn Planter

SIMPLE—DURABLE—ECONOMICAL

In this Planter the seed is delivered from the dropper to the receptacle at the bottom, which, when opened by pressing over on the foot, leaves it at once at the depth required, avoiding the trouble found with all hand planters that deliver the seed direct from the dropper to the soil. Price \$3, postpaid \$3.25.

## The Eclipse All-Steel Rotary Hand Corn Planter

Has a positive feed and four plates for planting one, two, or three grains at a time, and an extra plate for smaller seeds. Price \$2.25, postpaid \$2.50.



Wiard Planter



Eclipse Planter

**Thompson's Royal**

14 Feet Long

This Grass Seeder has won for itself first place among all kinds of Grass Seeders. Most accurate and economical machine for sowing clover, timothy, alfalfa, and other small seeds broadcast. Runs easily, and sows evenly in windy weather. The quantity of seed sown is accurately governed by the wheel, which moves correspondingly slow or fast as the machine is run over the ground. It is

**Chain Feed Grass Seeder**

32-inch Wheel

instantly thrown out of gear, and the amount of seed sown is quickly governed by changing the pin in the index plate as thereon indicated. Does not injure or bunch the seed, but evenly distributes it the full length of the hopper.

Sows all small seeds like Clover, Timothy, and Alfalfa. Price \$11.50.

**"The Cahoon" Seeder**

The most accurate and durable Hand Broadcast Seed Sower. Sows all kinds of grain and grass seed. Is accepted everywhere as the world's standard. It is made of steel, iron and brass and lasts a lifetime. Every machine warranted. \$5; postpaid \$5.50.

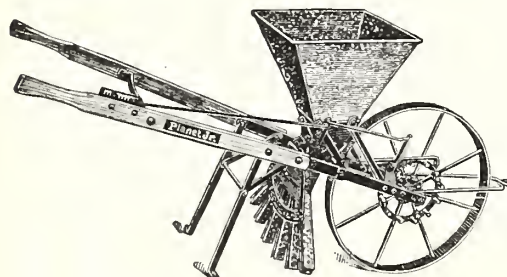
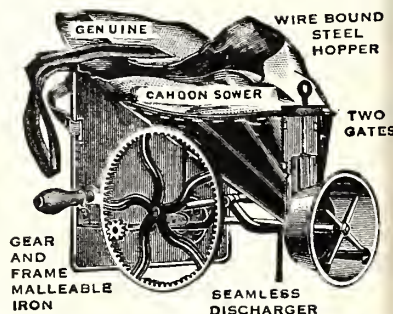
**The Cyclone Seed Sower**

Has won for itself first place among all kinds of hand seed-sowers. It has proven in thousands of instances that it is the most accurate, most convenient to operate and most economical machine for sowing clover, timothy, alfalfa, and all other farm seeds that can be sown broadcast. It runs easily and will

distribute any desired quantity of seed per acre.

**A Slope Feed-Board.** All working parts are attached to a rigidly built frame made from thoroughly kiln-dried lumber and, embodied in the framework is a Slope Feed-Board which gives the seed a gravity flow and always keeps the hopper outlet properly filled without tilting the machine.

**Automatic Feed Adjustment.** Gives a positive force feed. Is quickly adjusted for different seeds. Flow can be started or stopped instantly by the touch of a lever. Seed cannot clog or "rush." No waste of seed. \$2.10; postpaid \$2.25.

**Planet Jr. No. 220 Fertilizer Distributor****SAVES TIME, MONEY—PRODUCES BIGGER CROPS**

The No. 220 spreads fertilizer from 4 to 30 inches on the ground. The hopper capacity is one bushel and the weight of the load is placed over the wheel, making it easy to push. The No. 220 will distribute 100 to 2,000 pounds of commercial fertilizer to the acre.

The No. 220 will distribute fertilizer in the middles of three rows 12 to 14 inches apart; it will side-dress one side each of two rows up to 3 feet apart (one complete row; and corn in wider rows). You can use it in very narrow rows—as close as 9 inches. You can use it in 3½ to 4-foot rows by closing off the flow in three spouts and distributing through the

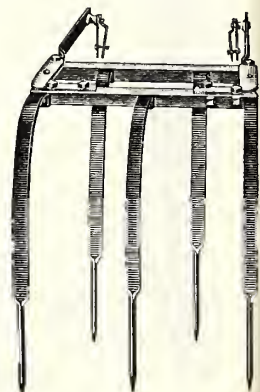
other three—either on the right or left hand side. Price, \$27.

**Center Weeder Attachment****FOR ALL RIDING CULTIVATORS**

This Center Weeder Attachment for Cultivators works directly over the row, the small teeth loosening the ground directly around and among the small plants, going where the Cultivator cannot reach.

This Attachment is furnished with either 5 or 7 teeth. It can readily be attached to any iron-beam cultivator by use of our New Universal Clamps, with an ordinary cultivator wrench.

Prices: 5-tooth Attachment Complete \$3.75; 7-tooth Attachment Complete \$4.25. By parcel post, 25 cts. extra.



**GARDEN SEEDS.** We have been supplying the most critical market-gardeners for more than forty years with vegetable seeds. Whether you buy in packets or in pounds, pints or bushels, you get the same fresh stock we furnish the largest market-gardeners. No order is too small to merit our best attention. Our stock is fresh from the most reliable growers of Europe and America.

# IRON AGE POTATO MACHINERY

## Convertible Two-Man Planter With McWhorter Fertilizer Distributor

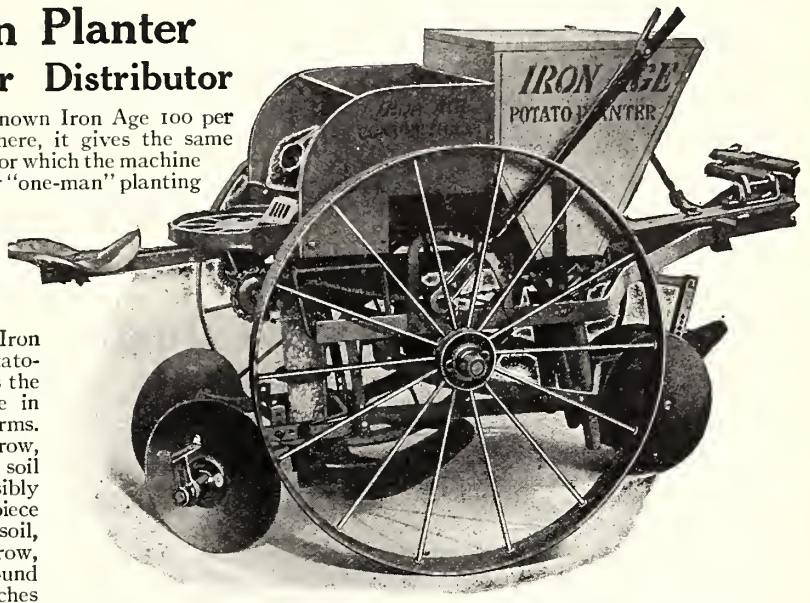
The No. 404R is the latest model of the well-known Iron Age 100 per cent Potato Planter. In this new form, shown here, it gives the same "personally inspected planting of every seed-piece" for which the machine has always been noted, but if desired, an automatic or "one-man" planting attachment can be supplied. This Planter is furnished either with the shield opening plow, or the double disc opening plow, as shown in cut, which is recommended for western Pennsylvania territory. The McWhorter Belt Feed Fertilizer Distributor has also been made standard equipment.

Two very important features have made the Iron Age the favorite Planter among scientific potato-growers for many years. One of these features is the perfect planting of one and only one seed-piece in every hill; the other is the groundwork it performs. With wonderful precision this planter opens the furrow, sows and thoroughly mixes the fertilizer with the soil on each side of the seed-trench where it cannot possibly come in contact with the potato, places the seed-piece in a narrow groove made in the moist, fresh soil, covers it to any desired depth, and marks next row, all at one operation. Every piece is placed in the ground at proper space, 12, 14, 15½, 17, 18½, or 20 inches apart as desired. The depth of planting and the covering is absolutely uniform. The planting is in a straight line because the seed is placed in a narrow groove—easy to cultivate, spray, and dig.

The McWhorter Fertilizer Distributor used on this machine feeds the fertilizer into the tubes by means of a Force-Feed Belt. This belt carries the fertilizer in a broad, thin sheet under an adjustable gate which regulates the quantity. The feed cannot become clogged because the belt is a revolving bottom for the hopper, too wide to permit damp fertilizer bridging over it. Each spout is movable and can be adjusted to any desirable position. The quantity of fertilizer used can be adjusted from approximately 500 to 3,000 pounds to the acre. Capacity of hopper about 200 pounds.

A single lever, operated from the seat, throws the entire machine into operation, lowering the opening discs, the grooving shoe, and the rear covering discs; also starts sowing of the fertilizer and the dropping of the potatoes.

Special catalogue and prices on request



## Iron Age Wide Elevator Potato Digger

Built for the heaviest conditions of vines, grass, and soil. Stands the hardest kind of usage for years. Separates the potatoes thoroughly from the soil, leaving them in a narrow trench midway between the wheels, with the vines cast off to one side.

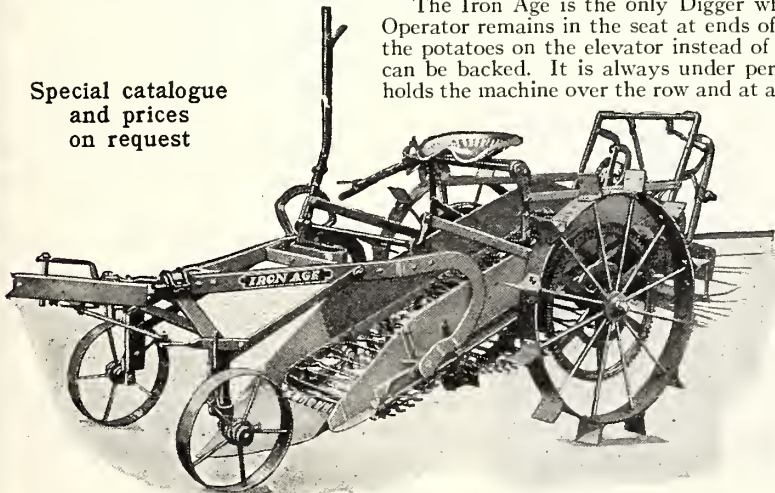
The Iron Age is the only Digger which can be thrown in and out of gear from the seat. Operator remains in the seat at ends of rows and by throwing the machine out of gear keeps the potatoes on the elevator instead of scattering them broadcast when turning. This digger can be backed. It is always under perfect control because of the Iron Age foretruck which holds the machine over the row and at an even depth but does not permit swinging to one side.

This foretruck permits very short turning anywhere without danger of upsetting or straining. Level ground, small ditches, grass hummocks at edge of field, trees which have to be worked around, side hills, all are taken care of by means of it. The plow is made of ½-inch steel and is fitted with stone fingers to prevent clogging. The elevator is 22 inches wide and can be furnished in either the 6-foot or 7-foot sizes. The wheels are 36 inches in diameter. Separate, removable bearings carry the elevator apron. Steel kickers with spring trip keep the vines and grass moving. A Vine Separator is furnished as a part of each machine.

Hyatt Roller Bearings can be furnished on the main elevator and shaker shafts when desired.

Iron Age Diggers are made in several styles, either with engine or traction power. They are built by specialists in potato machinery who have been in business for more than eighty years.

Special catalogue  
and prices  
on request



## Pittsburgh Potato-Digger and Hiller

This Potato-Digger has been in successful use for many years. It is equal to any ordinary requirements that may be made upon it. It will work where a good many higher-priced Diggers will not work. If properly used, it will not cut the potatoes and will also leave the ground in good shape. The depth of the Plow can be regulated with a gauge wheel bolted on the rear and which follows in the bottom of the furrow. The beam is made heavy enough to stand all ordinary strain. The handles can be adjusted up or down. Hilling shovel has adjustable wings for furrowing out or hilling, as may be desired.

### PRICES

|                                 |         |
|---------------------------------|---------|
| Digger only.....                | \$11 00 |
| Digger and Hiller combined..... | 13 50   |
| Single-gauge Wheel, extra.....  | 1 00    |
| Double-gauge Wheel, extra.....  | 2 50    |



## Success Junior Potato Digger

The Success Junior is the most popular plow-type Potato Digger on the market. Just the digger for the small grower—in fact, no farmer can afford to be without this Digger, even if he raises only sufficient potatoes for his own consumption.

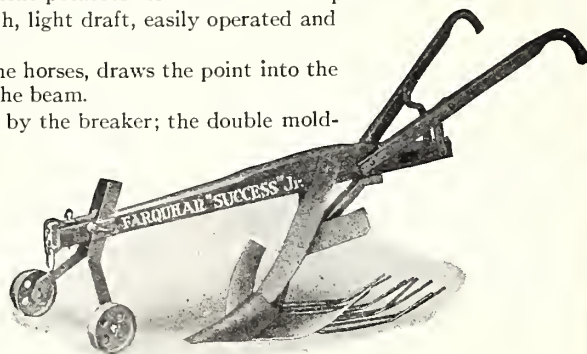
It is simple in design, rugged in construction, is adjustable as to depth, light draft, easily operated and does a clean job of digging.

The weight of the double and single trees, together with the pull of the horses, draws the point into the ground, but its depth is regulated by the adjustable wheel at the end of the beam.

The point or shovel enters the ground and the furrow-slice is divided by the breaker; the double mold-board turns each half back over the wings and steel tines. Here the tines permit the soil to pass between them while the potatoes roll back over the end of the fork and remain on top of the ground.

The Beam and Handles are made from carefully selected and well-seasoned oak. Handles have adjustable braces accommodating themselves to the height and convenience of the operator, assuring easy and complete control.

Price, with single wheel foretruck \$13.50; with double wheel foretruck as shown in illustration, \$14.50.



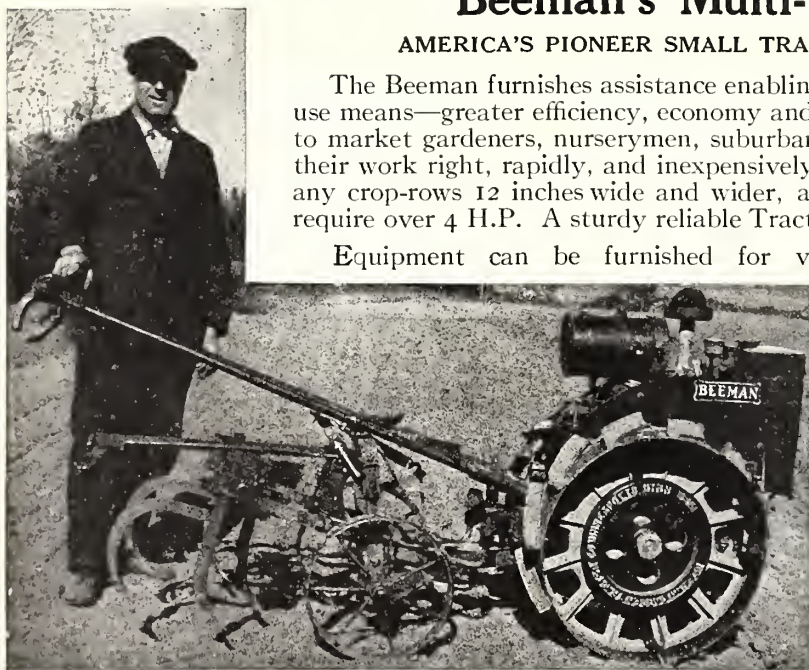
## Beeman's Multi-Service Tractor

### AMERICA'S PIONEER SMALL TRACTOR AND POWER CULTIVATOR

The Beeman furnishes assistance enabling you to fully care for a small acreage. Its use means—greater efficiency, economy and profit as well as the resultant satisfaction to market gardeners, nurserymen, suburbanites and the individuals who desire to do their work right, rapidly, and inexpensively. It plows, discs, harrows, and cultivates any crop-rows 12 inches wide and wider, and handles any belt work that does not require over 4 H.P. A sturdy reliable Tractor that furnishes a needed help.

Equipment can be furnished for varying soil conditions and for different types of work, and for this reason we do not quote prices in the catalogue but will send special catalogue giving complete information and prices on request.

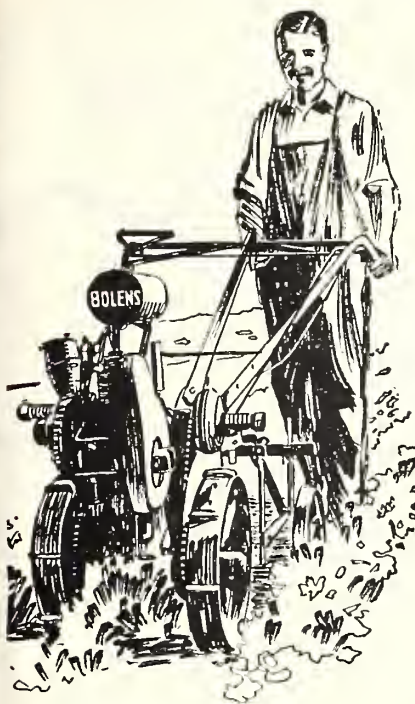
Specifications: Single Cylinder, 4 Cycle, Water-cooled Motor of the L head vertical type, 3½-in. Bore, 4½-in. Stroke. Four H.P. on the belt and 2 H.P. on the draw bar; Heinz high tension Magneto, wheels 25 in. in diameter, 3¼-in. tire, width 17¼ in. outside of the rim of one wheel to the outside rim of the other, inside width 10¾ in. Weight about 550 lbs.



Beeman Equipped with 4-inch Extension Rims, Trailer and Cultivator Attachment

Write for catalogue and price-list.

# Bolens Garden Tractor



*Garden Plowing  
Hay Mowing  
Lawn Mowing*

*Seeding  
Harrowing  
Spraying*

*Cultivating  
Weeding*

Here is the light, compact, easily operated Tractor that motorizes gardening and makes it an outdoor sport.

**Bolens** is doing for the gardener, florist, nurseryman, suburban farmer, poultry-keeper, estate owner, and others what the automobile has done for transportation.

Gone are the days of back-breaking drudgery, with hand and push implements. **Bolens** does the work by gasoline power. All it needs is a guiding hand.

The **Bolens** Tractor was developed in the field by experienced engineers assisted by practical growers. It has many patented and exclusive features, each vital and indispensable for the work required. The patented arched axle, 15 inches high, provides clearance for the plants and vision for the operator. A blind man cannot cultivate, neither can the man who is unable to see his row.

**Bolens** tool-control makes the guiding of the tools automatic with the steering of the Tractor, so it is easy to do the most accurate work and thereby largely eliminate hand-weeding. A double clutch drive provides power turn and leaves the drive-wheels free for turning or backing when power is off. Handles are offset and the operator walks between rows in a comfortable position. The width of drive-wheels over all is 18 inches (16 inches with 2-inch wheels) and the outfit will work in rows 11 inches apart or wider.

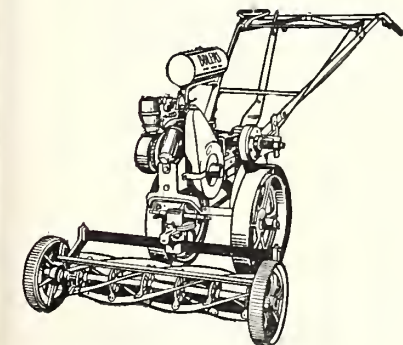
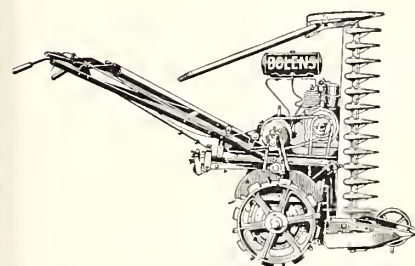
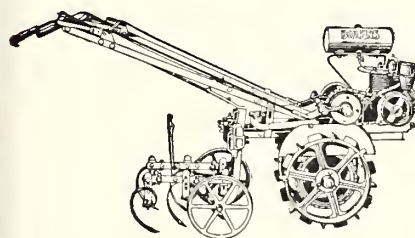
Instant hitches make all attachments quickly interchangeable without the use of a wrench.

One man with the **Bolens** will usually do more and better work than four men with wheel-hoes. On a small farm the **Bolens** often takes the place of a horse, completely motorizing all operations with a tremendous saving for the owner.

**Bolens** reduces the cost of production for the commercial grower and increases the earning power of the individual.

Visit our store and see the outfit on our sample floor.

We sell **Bolens** subject to demonstration.



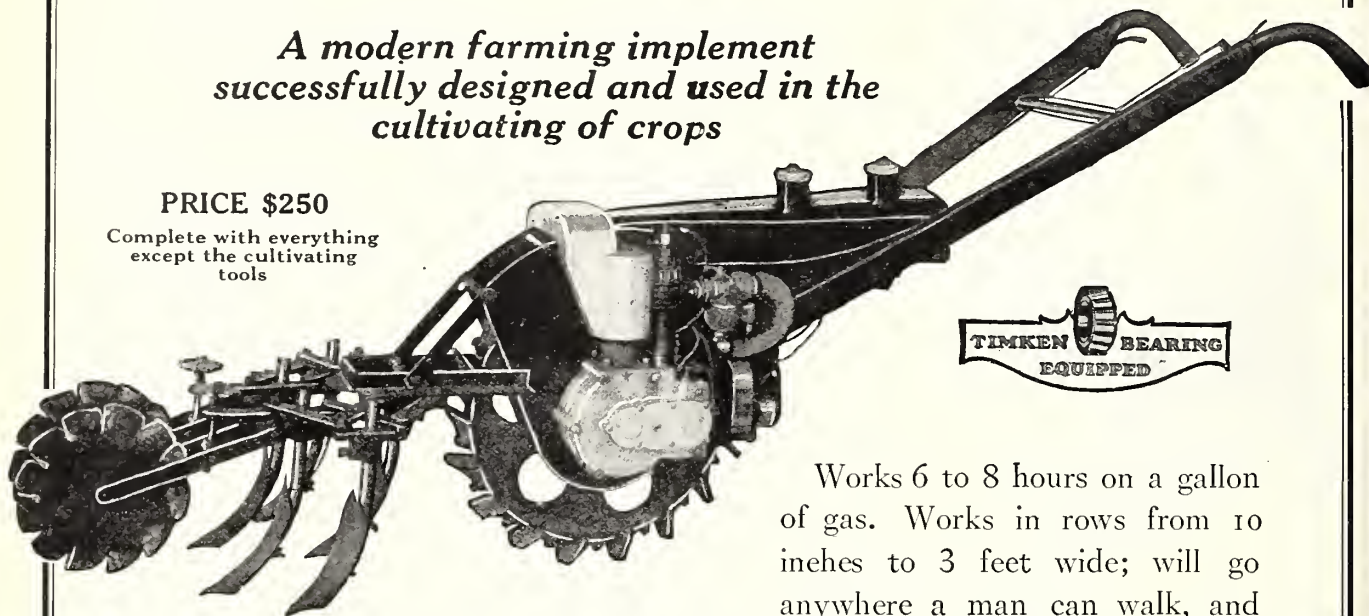
Write for the **Bolens** Catalogue and Complete Price-List

# THE GRAVELY MOTOR CULTIVATOR

*A modern farming implement  
successfully designed and used in the  
cultivating of crops*

PRICE \$250

Complete with everything  
except the cultivating  
tools



Works 6 to 8 hours on a gallon of gas. Works in rows from 10 inches to 3 feet wide; will go anywhere a man can walk, and will turn in a 3-foot space. Uses standard cultivating tools. Prices on request. We recommend the Planet Jr. line.

Keeps the horse out of the garden. Eliminates the push plow. Will work in any kind of soil and on level land or hillsides. Has single wheel traction, therefore can cultivate small or large plants. Has a specially built, powerful, reliable air-cooled Motor. Contains 2 Timken Roller and 3 Norma Ball Bearings.

The only small Traetor on the market today on which the cultivating tools can be used in front. This makes for easier and more accurate guiding. You are naturally looking ahead of you all the time, and without any extra effort can watch both the tools and plants at the same time.

The above statements are frank. We don't want you to take our word for them, but we would welcome the opportunity of proving to you that they are facts, and that the **Gravelly** will do everything claimed for it. Remember, a demonstration will cost you nothing and is yours for the asking. We want to show you what this machine will do. There is a difference

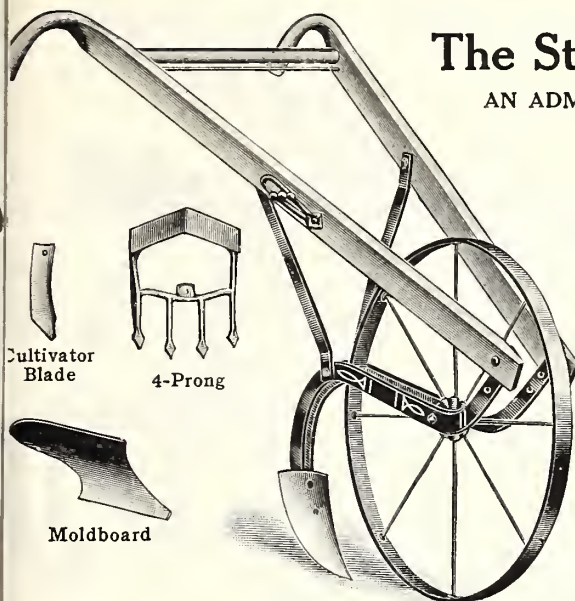
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**MAY WE SHOW YOU?**

## The Star Garden Cultivator

AN ADMIRABLE TOOL FOR THE GARDEN

This tool is a universal favorite and it is safe to say that there is no similar tool made that in the matter of ease of operation, high grade material, and fine finish will equal the Star. The Beam is made of a very stiff steel, and is constructed so that when handles are attached the center of weight falls directly over the pivoting point which forms the axle for wheel, making it self-balancing, and which admits of its being propelled with a minimum of power. Handles can be raised and lowered to suit man or boy. It is noted for its light draft and the great amount of work it will do. Built of steel throughout, except the handles, which are of selected hardwood.



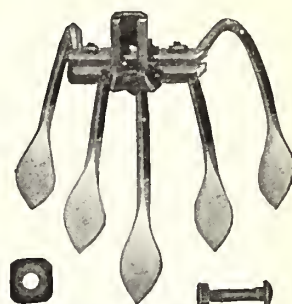
This cut shows No. 1 Complete

Garden Plow can also be used on other makes of garden plows of same general type.

It's a popular attachment for the reason it brings the results the gardener wants. By means of this attachment you are able to cultivate the soil in proper manner and the weeds will have absolutely no chance to sprout. Also the proper stirring of the soil prevents evaporation of the valuable soil moisture which feeds and gives life to the growing plants. This attachment leaves the soil level and loose and will stir the same to any desired depth. The middle prong is often removed and rows straddled. No garden cultivator is complete without this attachment.

### PRICES

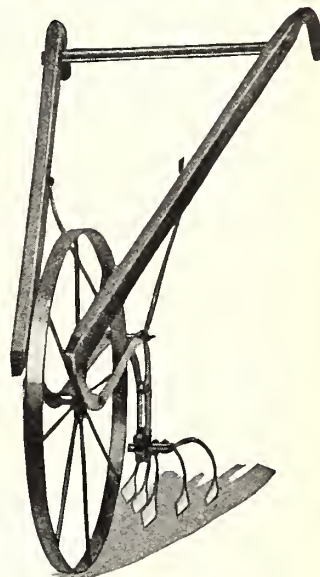
|  |        |
|--|--------|
| No. 1. Complete, as shown above .....                                | \$3 50 |
| No. 2. With 5-Prong Attachment, Moldboard and Cultivator Blade ..... | 4 00   |
| 5-Prong Attachment alone 90 cts., postpaid .....                     | 1 00   |



5-Prong Attachment

### 5-Prong Attachment

The New 5-Prong Attachment for Star



With 5-Prong Attachment

## Iron Age New Model Seed Drill

For many years this tool has been the favorite seeder with thousands of gardeners.



Price,  
\$13.50

Weight,  
50 lbs.

It has exact regulation of seed discharge by using an eccentric index or indicator, which adjusts the slide for the seed opening exactly where you want it.

The index is in plain sight when the tool is in operation—the names of the principal seeds are shown on it—no reference table is necessary.

The flow of seed can be instantly stopped by a swinging cut-off, operated by a cord and ring on the handles. Prevents loss at ends of rows and is preferable to a slide cut-off that is likely to be jammed by falling seed.

## Gem Single Wheel Hoe and Cultivator

Price, complete with all tools  
\$8

Weight, 28 lbs.



The working tools include set of five slender cultivator teeth, each stamped from one piece of steel and guaranteed for thorough work, especially in hard soil; two sizes of scuffle hoes for working between the rows; and pair of plows which can be used together as one plow or separate for hilling. The scuffle hoes are 4, and 8½ inches wide.

The wheels are adjusted in height by moving frame braces up or down on ratchet just in front of handles.

The handles can be adjusted to suit short or tall people.

### FARM AND GARDEN BOOKS

See pages 207 and 208 for our list of the latest and best Farm, Garden, and Poultry Books.

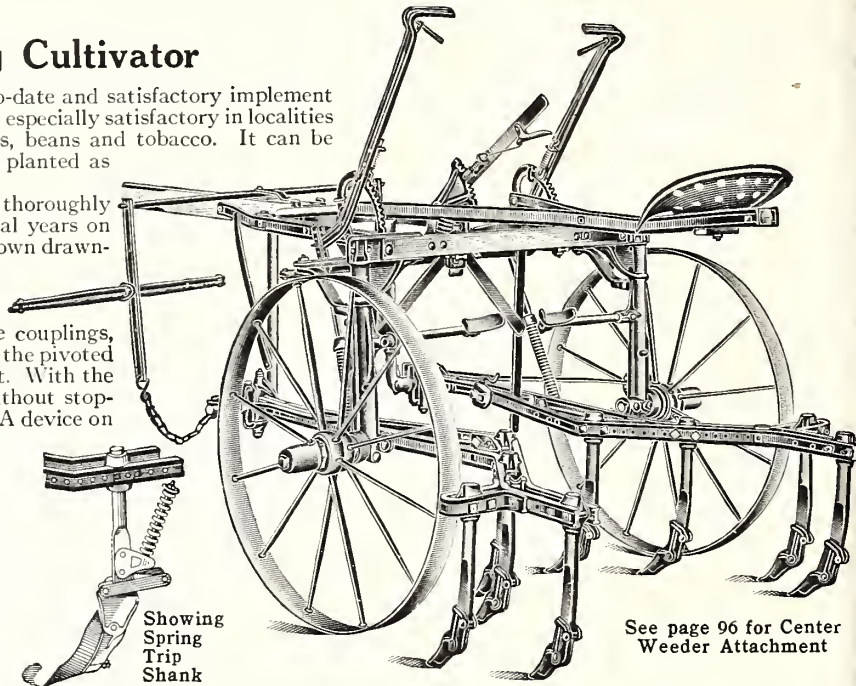
## Little John Riding Cultivator

The Little John Cultivator is the most up-to-date and satisfactory implement of its class on the market today. It will be found especially satisfactory in localities where narrow row crops are planted—potatoes, beans and tobacco. It can be narrowed down to cultivate successfully crops planted as close together as 28 inches.

We have incorporated in the Little John the thoroughly tested pivot axle construction, in use for several years on our Pivot Axle Cultivators. We use the well-known drawn-in hitch feature, whereby the draft of the team draws the gangs into the ground, assuring an even depth of cultivation.

The gangs are pivoted to the front on cone couplings, and are controlled by the shifter bar attached to the pivoted standards and are governed entirely by the feet. With the center lever the operator can instantly and without stopping bring the gangs together or set them out. A device on the shifter bar enables the operator to lock the frame, making it rigid. The pole is equipped with the patent pole adjustment whereby the frame of the Cultivator is kept level, regardless of the size of the team. The extension gangs are made of two bars of high carbon steel, the shovel standards are attached between the bars and the holes therein make it possible to set them as close together as may be desired.

The wheels are low and very strong, equipped with dust-proof hubs.



Showing  
Spring  
Trip  
Shank

See page 96 for Center  
Weeder Attachment

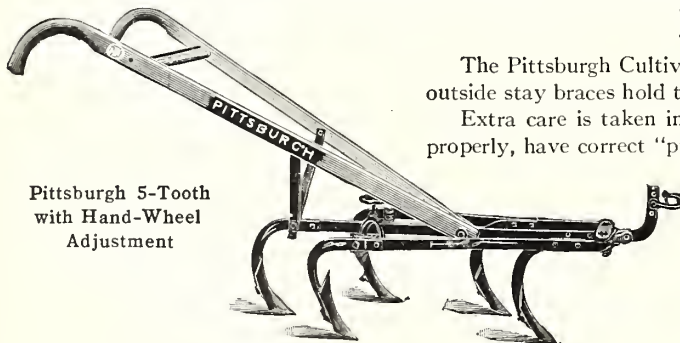
|                            |         |
|----------------------------|---------|
| 6-Shovel, Pin Trip.....    | \$51 50 |
| 8-Shovel, Pin Trip.....    | 52 50   |
| 6-Shovel, Spring Trip..... | 56 50   |
| 8-Shovel, Spring Trip..... | 59 50   |

Six-shovel Cultivators are furnished with six 3½-inch double-pointed shovels, and two 1½-inch Bull Tongues. Eight-shovel Cultivators with eight 2½-inch shovels, but no bull tongues. Prices include shields. Hillers, if wanted, are \$1.75 extra.

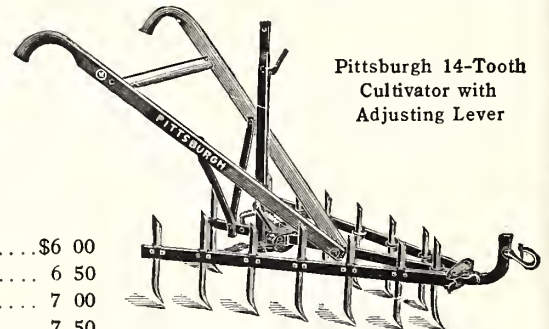
## Pittsburgh Cultivators

The Pittsburgh Cultivators are made of round-edge steel, and are highly finished. The outside stay braces hold the frame solid to any width it may be set.

Extra care is taken in the "setting" of the shovels to see that they "face" the work properly, have correct "pitch" and are evenly spaced so that they will cut all the ground.

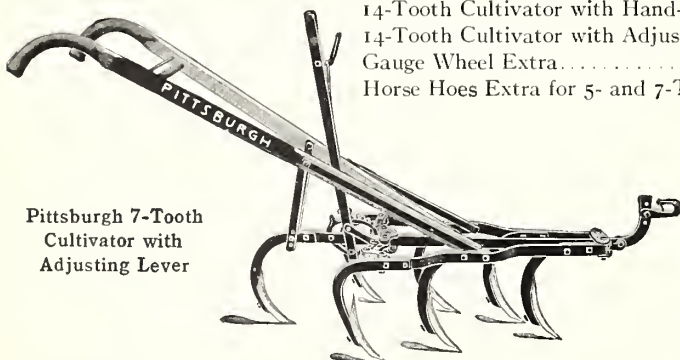


Pittsburgh 5-Tooth  
with Hand-Wheel  
Adjustment



Pittsburgh 14-Tooth  
Cultivator with  
Adjusting Lever

|  |        |
|--|--------|
| 5-Tooth Cultivator with Hand-Wheel Adjustment..... | \$6 00 |
| 5-Tooth Cultivator with Adjusting Lever.....       | 6 50   |
| 7-Tooth Cultivator with Hand-Wheel Adjustment..... | 7 00   |
| 7-Tooth Cultivator with Adjusting Lever.....       | 7 50   |



Pittsburgh 7-Tooth  
Cultivator with  
Adjusting Lever

|   |        |
|---|--------|
| 14-Tooth Cultivator with Hand-Wheel Adjustment..... | \$6 25 |
| 14-Tooth Cultivator with Adjusting Lever.....       | 6 75   |
| Gauge Wheel Extra.....                              | 90     |
| Horse Hoes Extra for 5- and 7-Tooth Cultivator..... | 1 50   |

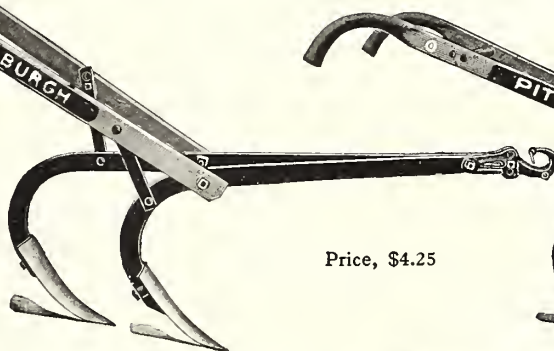


Horse Hoes for 5- and 7-Tooth Cultivators

## PITTSBURGH SHOVEL PLOWS

## Pittsburgh Steel-Beam Double-Shovel Plow

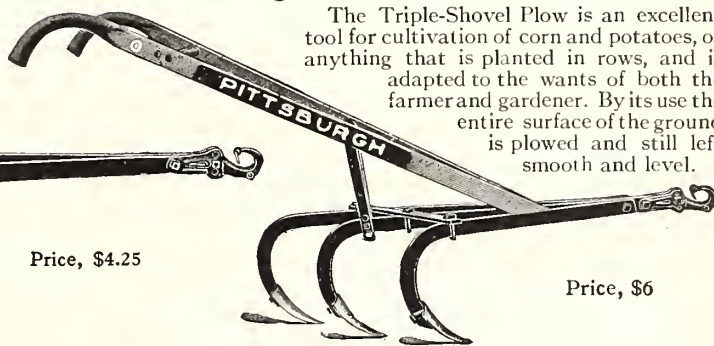
Shovels have proper pitch for entering ground right, and making steady running Plow. Beams made of solid steel, rolled, tapering at point.



Price, \$4.25

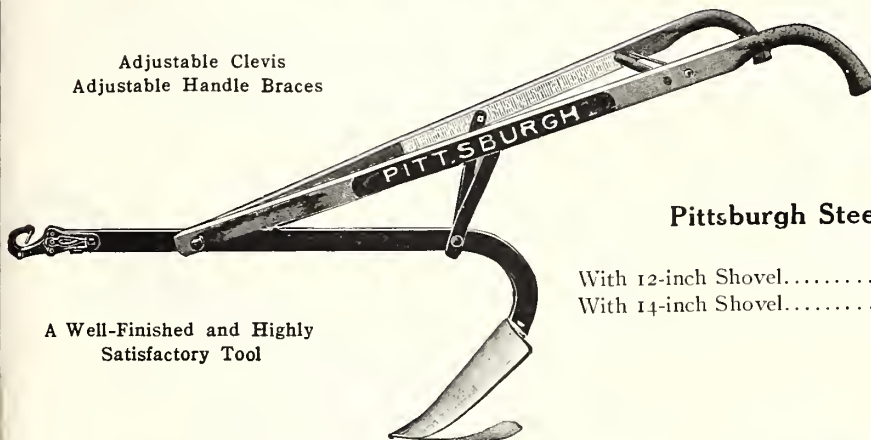
## Pittsburgh Steel-Beam Triple-Shovel Plow

The Triple-Shovel Plow is an excellent tool for cultivation of corn and potatoes, or anything that is planted in rows, and is adapted to the wants of both the farmer and gardener. By its use the entire surface of the ground is plowed and still left smooth and level.



Price, \$6

Adjustable Clevis  
Adjustable Handle Braces



## Pittsburgh Steel-Beam Single-Shovel Plow

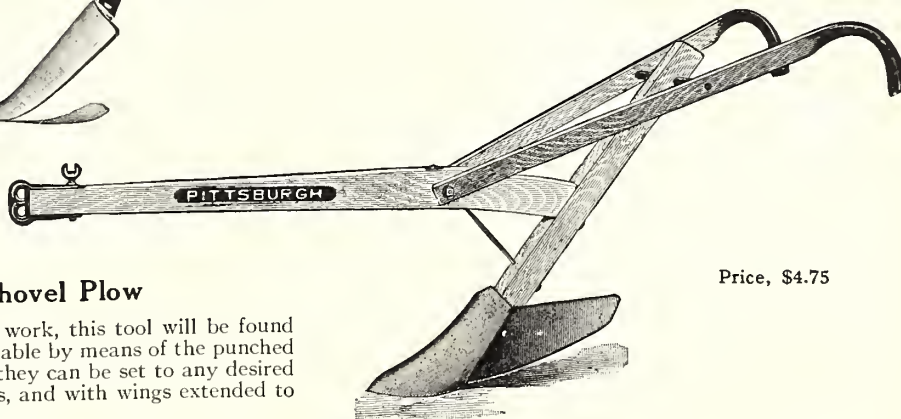
## PRICES

|                          |        |
|--------------------------|--------|
| With 12-inch Shovel..... | \$3 75 |
| With 14-inch Shovel..... | 4 00   |

A Well-Finished and Highly  
Satisfactory Tool

## Pittsburgh Wing Shovel Plow

For hilling potatoes and other similar work, this tool will be found highly satisfactory. The wings are adjustable by means of the punched straps or braces that support them, and they can be set to any desired angle. Width of main shovel is 12 inches, and with wings extended to limit, it makes a total width of 26 inches.



Price, \$4.75

## Cultivator and Harrow Repairs

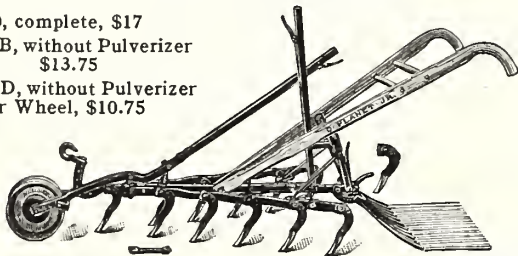
|   | Each   |  | Each   |
|---|--------|--|--------|
| 1 1/2 in. x 8 in. x 3/4 in. Reversible Blade with Bolt.....                 | \$0 14 | 16 in. x 12 in. Single Shovel Plow Blade with Bolts, 2-hole..  | \$1 75 |
| 2 in. x 8 in. x 3/8 in. Reversible Blade with Bolt.....                     | 15     | 6-in. Rear Horse Hoe Shovel.....   | 40     |
| 3 in. x 8 in. x 3/8 in. Reversible Blade with Bolt.....                     | 16     | Teeth for 14-Tooth Cultivator.....   | 15     |
| 4 in. x 8 in. x 3/8 in. Reversible Blade with Bolt.....                     | 20     | Wing Shovel Plow Bottom.....   | 2 50   |
| 1 1/2 in. x 10 1/2 in. x 3/8 in. Reversible Blade with Bolt....             | 18     | 3/4 in. x 1 3/4 in. Bolt for Cultivator Shovels.....   | 04     |
| 2 1/2 in. x 10 1/2 in. x 3/8 in. Reversible Blade with Bolt....             | 22     | Handles for all Cultivator and Shovel Plows, finished, per pair.....   | 1 25   |
| 3 1/2 in. x 10 1/2 in. x 3/8 in. Reversible Blade with Bolt....             | 25     | Handles, unfinished, 1 1/4 in. x 2 in. x 5 ft.....   | 40     |
| 1 1/2 in. x 10 1/2 in. x 3/8 in. Reversible Blade with Adjustable Back..... | 47     | Handles, unfinished, 1 3/8 in. x 2 3/8 in. x 5 ft.....   | 55     |
| 2 1/2 in. x 10 1/2 in. x 3/8 in. Reversible Blade with Adjustable Back..... | 52     | Shank for 5- and 7-Tooth Cultivator.....   | 45     |
| 3 1/2 in. x 10 1/2 in. x 3/8 in. Reversible Blade with Adjustable Back..... | 60     | Moldboard for Star Cultivator.....   | 60     |
| 6 in. x 10 in. Double Shovel Plow Blade with Bolts, 2-hole..                | 45     | Cultivator Blade for Star Cultivator.....  | 25     |
| 10 in. x 12 in. Single Shovel Plow Blade with Bolts, 2-hole..               | 1 10   | Spring Harrow Teeth for Badger, Iron City, Eclipse, Pittsburgh Perry and Pittsburgh Combination Harrows..... | 50     |
| 12 in. x 12 in. Single Shovel Plow Blade with Bolts, 2-hole..               | 1 20   | Spike Harrow Teeth for Columbian and Pittsburgh Head Rail Harrows.....                                       | 50     |
| 14 in. x 12 in. Single Shovel Plow Blade with Bolts, 2-hole..               | 1 40   | (Specify make of Harrow that teeth are wanted for.)  |        |
|   |        | Coulter for Acme Harrow.....   | 80     |
|   |        | Teeth for Hallock Weeder.....  | 20     |

# Planet Jr. Farm and Garden Tools

Planet Jr. Tools are the greatest savers of time, labor, and money ever invented for the farm and garden. They pay for themselves in a single season in bigger and better crops, and last a lifetime. Fully guaranteed.

## Planet Jr. Twelve-Tooth Harrow, Cultivator and Pulverizer

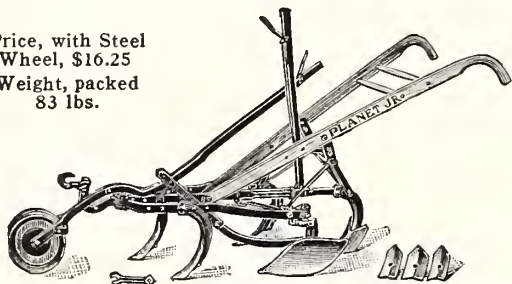
- No. 90, complete, \$17  
 No. 90B, without Pulverizer  
 \$13.75  
 No. 90D, without Pulverizer  
 or Wheel, \$10.75



With the Twelve-tooth Harrow you go as deep or shallow as you like, come up close to row without injuring plants, cut out all weeds, stir the soil and fine it as with a garden rake. You widen and narrow as you please between 12 and 32 inches. A favorite with strawberry-growers, market-gardeners, etc.

## No. 8 Planet Jr. Combined Horse Hoe and Cultivator

- Price, with Steel  
 Wheel, \$16.25  
 Weight, packed  
 83 lbs.

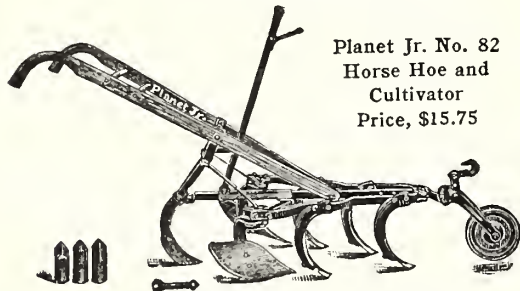


No other cultivating machine is so widely known as the Planet Jr. Combined Horse Hoe and Cultivator, for it is in use throughout the civilized world. It is so strongly built as to withstand incredible strain, yet it is light and easy to handle. Fifteen other styles of Planet Jr. Cultivators—various prices. Come and get a Planet Jr.; save time and money.

Planet Jr. No. 9 Horse Hoe. Same as No. 8 but without lever wheel or depth regulator. Price, \$14.25.

## No. 82 Horse Hoe

- Planet Jr. No. 82  
 Horse Hoe and  
 Cultivator  
 Price, \$15.75

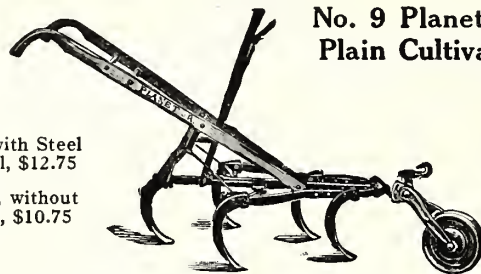


A very popular machine because of the large amount and great variety of work that can be done with it. Finishes rows up to 42 inches apart and works the middle complete at one passage. Zigzag frame is particularly strong and the seven teeth insure fine and thorough cultivation. In addition to regular equipment, other widths of cultivator teeth, sweeps, furrowers, and turning shovels can be added.

Planet Jr. No. 83 Plain Cultivator. Same as No. 82, but with 7 cultivator teeth only and without reversible standards. Price, \$14.25.

## No. 9 Planet Jr. Plain Cultivator

- Price, with Steel  
 Wheel, \$12.75  
 No. 9D, without  
 Wheel, \$10.75

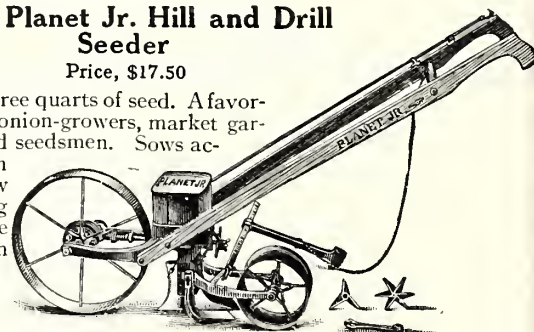


A sturdy and carefully constructed tool with features appealing to every farmer. It is light, easily and instantly adjustable for width, will cultivate perfectly, and is strong enough to stand incredible strain. Handles are adjustable up and down and side-wise—especially useful in berries. Cultivator teeth are beveled and especially hardened and tempered, assuring that they will be long-wearing and constantly sharp.

## No. 3 Planet Jr. Hill and Drill Seeder

- Price, \$17.50

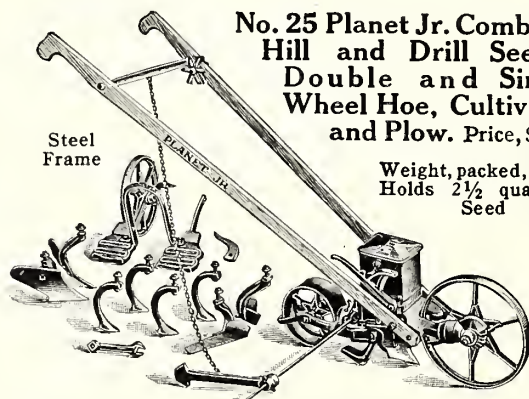
Holds three quarts of seed. A favorite among onion-growers, market gardeners, and seedsmen. Sows accurately in a narrow line making wheel-hoe cultivation easy.



Planet Jr. No. 5 Hill and Drill Seeder. Same as No. 3 but larger. Holds 5 quarts of seed. Price, \$20.

## No. 25 Planet Jr. Combined Hill and Drill Seeder, Double and Single-Wheel Hoe, Cultivator, and Plow. Price, \$21.50

- Weight, packed, 61 lbs.  
 Holds 2½ quarts of  
 Seed



As a Seeder it is practically the same as the Planet Jr. No. 4, and as a Wheel Hoe it has the same steel frames and cultivating attachments as the Planet Jr. No. 12 Double-Wheel Hoe.

Two acres a day can easily be worked, and when it is done it will be a better job than several men could have done in the same time with hand hoes.

New 72-page Planet Jr. Catalogue free. Describes over 70 seeding and cultivating tools. Write for it

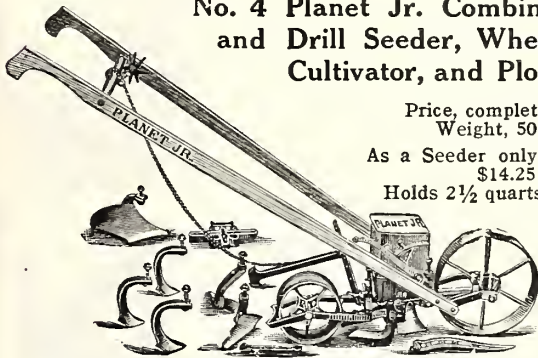
# Planet Jr. Farm and Garden Tools

Cut down work and boost your crops. Old-time farming and gardening no longer pays. These scientific tools do the work of three to six men, give bigger yield, and save their cost in a single season. Invented and made by a practical farmer and manufacturer, with half a century's experience. Planet Jrs. are strong and lasting. Every tool fully guaranteed. Come and let us convince you of their economy.

## No. 4 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator, and Plow

Price, complete, \$18  
Weight, 50 lbs.

As a Seeder only (No. 4D),  
\$14.25  
Holds  $2\frac{1}{2}$  quarts of seed



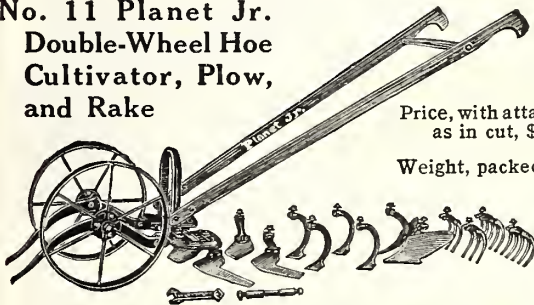
Plants in hills 4, 6, 8, 12 or 24 inches apart.

Soon pays for itself in the family garden as well as in the larger acreage. Sows all garden seeds (in drills or in hills), plows, opens furrows and covers them, hoes and cultivates quickly and easily. No. 4D, Hill and Drill Seeder, same as above less the cultivating attachments, \$14.25.

## No. 11 Planet Jr. Double-Wheel Hoe Cultivator, Plow, and Rake

Price, with attachments  
as in cut, \$13.75

Weight, packed, 39 lbs.



A Single and Double-Wheel Hoe in one. Straddles crops till 20 inches high, then works between. Has steel frames and 14-inch steel wheels. The greatest hand-cultivating tool in the world.

Planet Jr. No. 12 Double and Single-Wheel Hoe. Same as No. 11 but less the rakes and one pair of hoes. Price, \$10.75.

## Planet Jr. Star Pulverizer

Price, \$3

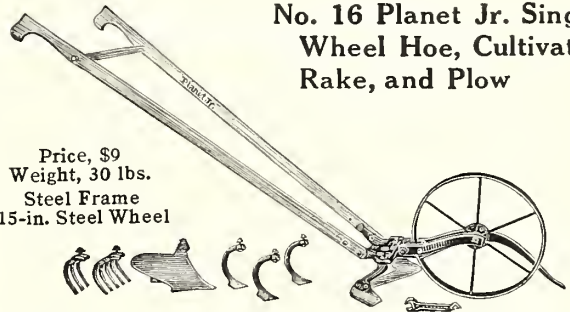
Width of cut  
 $7\frac{1}{2}$  inches



A very good tool for cultivating, pulverizing, and leveling. Discs break up the soil and scuffle blade weeds, smooths, and cultivates. Especially efficient after a rain.

## No. 16 Planet Jr. Single-Wheel Hoe, Cultivator, Rake, and Plow

Price, \$9  
Weight, 30 lbs.  
Steel Frame  
15-in. Steel Wheel



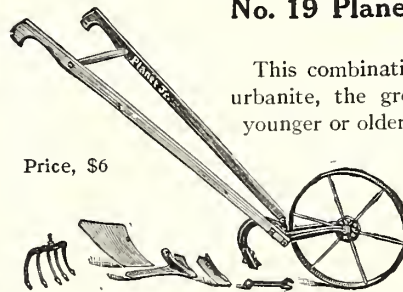
Equipment very complete, including one pair of 6-inch hoes for weeding and shallow cultivation, three cultivator teeth for general and deeper cultivation, one plow with landside for hilling, ridging, and plowing, one 3-tooth and one 5-tooth rake for fine, close cultivation, and one leaf-lifter, which is useful in protecting overhanging leaves and vines. An ideal machine for the family garden.

Planet Jr. No. 17 Single-Wheel Hoe. Same as No. 16 but without the rakes. Price, \$7.75.

## No. 19 Planet Jr. Single-Wheel Hoe

This combination will delight the suburbanite, the growing boy, and women, younger or older, who will find it a light-running Wheel Hoe that will save them hard work and help much to supply the table with fine vegetables.

Price, \$6



## No. 2 Planet Jr. Grass Edger

Neatness is the greatest secret of attractiveness in grounds surrounding a house, and to have this neatness the grass bordering walks must be frequently edged or trimmed. With the No. 2 Planet Jr. Edger you can edge either straight or curved walks of cement, stone, or brick, rapidly and easily.

The sharp edging disc is made of high-grade steel and will last for years. An extremely simple and easy tool to operate, and there is nothing to get out of order. Your lawn mower needs an assistant—the No. 2 Planet Jr. Lawn Edger—to finish the job.

Price, \$1.60  
Postpaid, \$1.85



WE HAVE THE PLANET JR. YOU NEED. COME AND GET IT

# Norcross

THE POPULAR  
ADJUSTABLE

## HAND GARDEN CULTIVATOR

Every Garden Needs One

The Norcross Line provides, for both men and women, the most modern tools at a moderate cost. Made in three sizes, of highest quality material, attractively finished and especially well constructed. The sharp tapering prongs pulverize

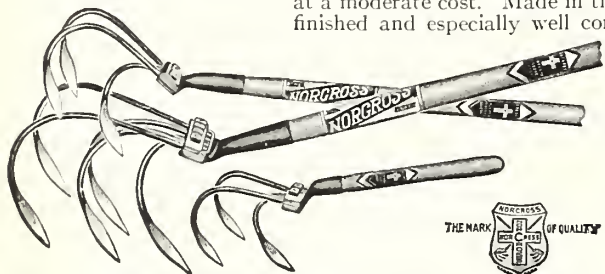
the ground thoroughly from 1 to 5 inches deep and leave it level, loose, and untrampled. Works between rows or center shovel may be removed and rows straddled. It permits working the soil close up to plants without injury to roots or foliage.

5-prong, 4-ft. handle (weight 3 lbs.).....\$1 00

3-prong, 4-ft. handle (weight 2 lbs.)..... 75

Midget, 9-in. handle (weight 12 ozs.)..... 50

Midget by parcel post, prepaid 55 cts.



## The Barker Weeder, Mulcher and Cultivator

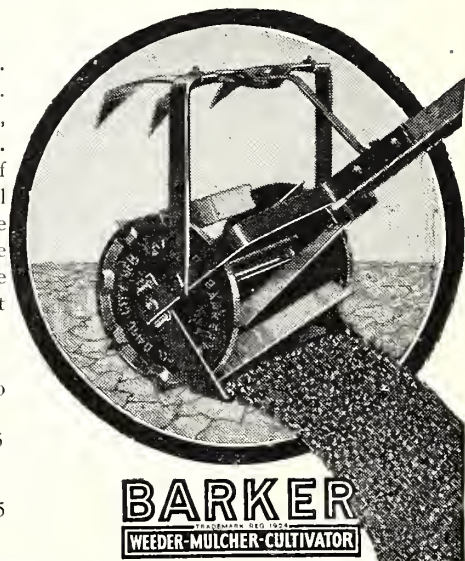
Should be in everyone's garden. Easy to operate. Self-adjusting. A time-saver. One man with a "Barker" can do more work, do better work than ten men with hoes. It cultivates and pulverizes the soil, forming a soil-mulch, which prevents evaporation, thus conserving the moisture, holding it in the soil for the use of the growing plants. The construction of this little machine is very simple. There is nothing to get out of order, nothing complicated about it. It has a revolving reel, holding eight spring steel blades securely fastened at the ends in cast-iron heads. Below this reel is a steel knife with ends turned up and connecting with the axle outside the heads. This lower knife passes below the surface of the ground, where it cuts off all the weed roots, while the revolving reel working in combination with it, cuts up the soil, separates the dirt from the weed roots and forms a perfect soil-mulch.

No. 8 1/2 D. The standard-size machine; will weed and mulch or cultivate a strip 8 1/2 inches wide. Has three shovels and leaf-guards.....\$10 60

No. 10 D. Will weed and mulch a strip 10 inches wide. Has three shovels and leaf-guards..... 11 75

Barker Jr. is built on exactly the same principle as the Barker and is identical throughout except lighter and less substantial in materials and does not have disc wheels. Weeds and mulches a strip 9 inches wide..... 7 35

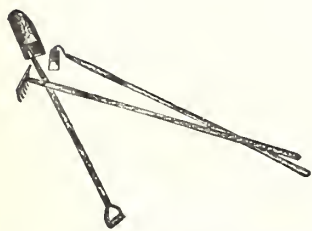
Ask for Special Descriptive Circular. Prices on other sizes quoted on request



**BARKER**  
WEEDER-MULCHER-CULTIVATOR

## Three-Piece Garden Set

These small tools are made from the same high-grade materials as the larger ones. They are especially adapted for ladies' and children's use. Not a toy. \$2.25, postpaid \$2.40.



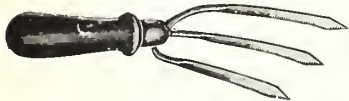
## Drop-Shank Steel Garden Trowel



Large and strong; made for hard service. Blades and shanks are forged from one solid piece of high-grade steel, tempered and polished. 90 cts., postpaid \$1.

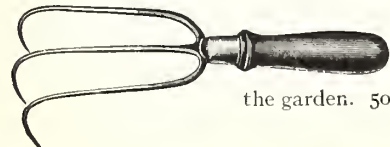
## Gem Garden Spade

A handy tool where careful cultivation is required. 50 cts., postpaid 60 cts.



## Eureka Weeder

Very convenient tool for weeding and cultivating in the garden. 50 cts., postpaid 60 cts.



## Steel Garden Rakes

Forged from one solid piece of steel; straight teeth; hammer-drawn, single shanks.

10 teeth.....\$1 00

12 teeth..... 1 10

14 teeth..... 1 20

16 teeth..... 1 30

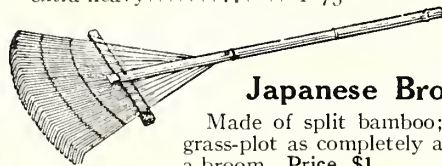
18 teeth..... 1 40

Road Rake, 16 teeth. Made extra heavy..... 1 75



## Japanese Broom Rake

Made of split bamboo; cleans the lawn or grass-plot as completely as though swept with a broom. Price, \$1.



## The Perfect Lawn Rake

A STRONG, WELL-FINISHED, DURABLE RAKE



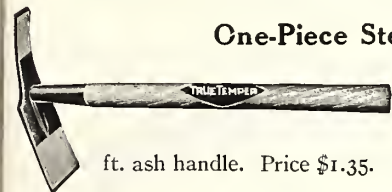
Reversible, and can be used for grass or leaves.

The teeth are made of best quality copper-bronzed furniture spring wire, No. 9 gauge. 24 teeth; head of No. 18 gauge sheet steel. Corrugated and reinforced. Head and socket nicely tinned. Price, 90 cts.



### Garden and Field Hoes

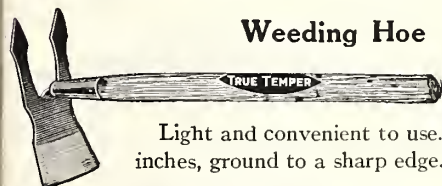
6½, 7, and 7½-in. blades, 4½-ft. handle, steel socket, \$1.25.  
Ladies' Hoe. 5-in blade, 90 cts.



### One-Piece Steel Mattock

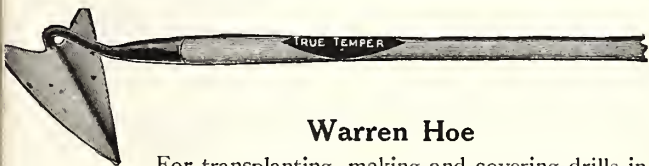
Just the tool for heavy soil. Has two oil-tempered blades. Strong and light. 4½-

ft. ash handle. Price \$1.35.



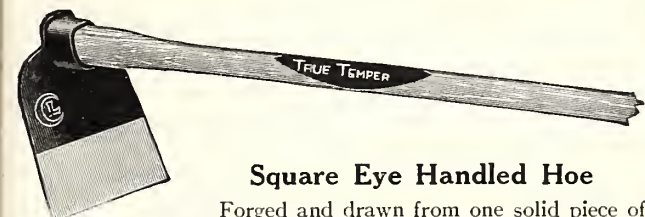
### Weeding Hoe

Light and convenient to use. Width of blade, 3¾ inches, ground to a sharp edge. 75 cts.



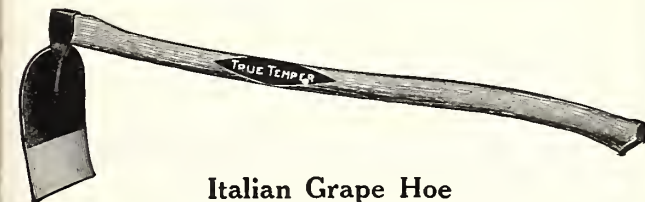
### Warren Hoe

For transplanting, making and covering drills in flower-beds, and weeding. 7½-in. blade; 4½-ft. handle. \$1.50.  
Baby Warren Hoes. 4½-in. tempered steel blade (measured corner to point); 6½-in. handle. 75 cts.



### Square Eye Handled Hoe

Forged and drawn from one solid piece of steel. 4½-in. half-polished blade; 4½-ft. handle. 85 cts.



### Italian Grape Hoe

Polished, hot-forged blades riveted to heavy malleable iron eye. 7 x 9-in. blades, 3½-ft. white ash handle. A heavy tool for heavy work. \$2.



### Potato Hook

Four diamond-back tines; goose neck. 4½-ft. handle. \$1.35.



### Hazeltine Weeder

One of the best little implements ever used in a garden. Made from special high-grade steel.

Price 30 cts., postpaid 35 cts.

### Asparagus Cutter

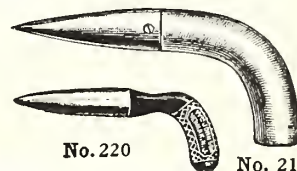


40 cts., postpaid 50 cts.

No. 2500. Used also as a weeder and dandelion digger.

### Dibbles

- 218. Wood handle, usual size.....\$0 70
- 219. Wood handle, small size..... 65
- 2180. Wood handle, brass point..... 90
- 220. Alliron. Weight, 2 lbs. 65



No. 220

No. 218

### Garden Trowels



No. 215



No. 211

- 211. Forged steel. 5-in. 65 cts., 6-in. 70 cts., 7-in. 75 cts.
- 217. Transplanting. 6-in. 20c., 7-in. 25 cts., 8-in. 30 cts.

No. 217



No. 217-A

- 215. English Pattern. 6-in. 25 cts.
- 217-A. Transplanting Hoe. 7-in. 65c.

Postage, 10 cts. each, extra

### Moe's Garden Tools



No. 80 Trowel

One-piece pressed steel. Finished in black and baked enamel. Length of blade 6 inches; width 1¾ inches. Price 20 cts. each, postpaid 30 cts.



No. 81 Transplanting Trowel

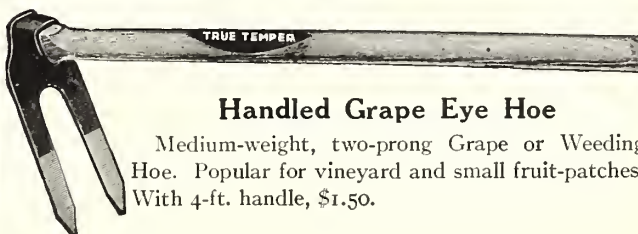


No. 82 Weeder

One-piece pressed steel. Finished in black baked enamel. Is one of the most useful and handiest garden tools made. Price 20 cts., postpaid 30 cts.

### COMBINATION OFFER:

Set of three tools, No. 80 Trowel, No. 81 Trowel, and No. 82 Weeder, 50 cts., postpaid 65 cts.



### Handled Grape Eye Hoe

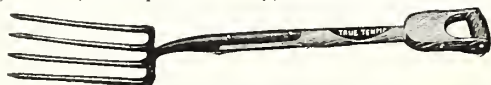
Medium-weight, two-prong Grape or Weeding Hoe. Popular for vineyard and small fruit-patches. With 4-ft. handle, \$1.50.

**SPADING FORKS.**

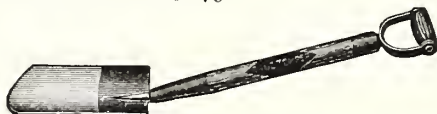
- 4 tines, about 11 inches long, wood D-handle. .... \$2 00  
 4 tines, about 11 inches long, malleable D-handle. .... 1 50  
 4 tines, about 7 inches long, Boy's, malleable D-handle. 1 15

**SPADES.**

- D-handle, solid plain back,  $7\frac{1}{2}$  x 12 inches. .... 1 25  
 Long handle, solid plain back,  $7\frac{1}{2}$  x 12 inches. .... 1 25



**English Digging Forks.** The sharp tines will enter soil more easily than a spade or spading fork, and break it up better. Excellent for ditching in stiff soils. Fork, shank and straps are one solid piece of steel, making it the strongest Fork we know. Four square, sharp-pointed, polished tines.  $11\frac{1}{2}$  in. long, 8-in. spread, wood D-handle. \$2.75.



**Automobile Spade.** A proven "life-saver" for motorists. Is very light; can be carried in tool-box or under seat, and can be used in close quarters in mud-hole or snow-bank. Just the thing for digging ferns and wild flowers. Forged steel blades with solid shanks. Blades, 5 x 8 in., curved and polished, with round point and iron D-handle. Length over all, 24 in. \$1.



**Ensilage or Barn Forks.** Half polished oval tines, end tines turned up.

- 6  $15\frac{1}{2}$ -in. tines, iron D-handle. .... \$2 65  
 6  $15\frac{1}{2}$ -in. tines, wood D-handle. .... 3 00  
 8 16-in. tines, iron D-handle. .... 2 90  
 10 16-in. tines, iron D-handle. .... 3 30



**Manure Forks.** Oval tines, strap ferrules, bent handle.

- 4-tine,  $4\frac{1}{2}$ -foot bent handle. .... \$1 95  
 4-tine, iron D-handle. .... 1 95



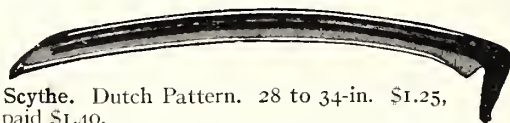
**Manure Forks.** Oval tines, strap ferrules, bent handle.

- 6-tine,  $4\frac{1}{2}$ -foot handle. .... \$2 40  
 6-tine, iron D-handle. .... 2 40



**Hay Forks.** Oval tines, strap ferrules.

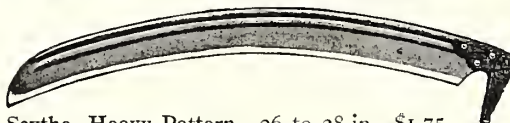
- 3-tine, 4 -foot bent handle. .... \$1 50  
 3-tine,  $4\frac{1}{2}$ -foot bent handle. .... 1 60  
 3-tine, 5 -foot bent handle. .... 1 70  
 3-tine,  $5\frac{1}{2}$ -foot bent handle. .... 1 80  
 3-tine, 6 -foot bent handle. .... 1 95

**Scythes and Snaths**

**Grass Scythe.** Dutch Pattern. 28 to 34-in. \$1.25, postpaid \$1.40.

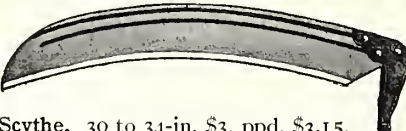
**Western Dutch Wide Heel Grass Scythe.** Briar edge. 30 to 34-in. \$1.50, postpaid \$1.65.

**Little Giant Grass Scythe, with Dutch Heel.** 30 to 34-in. \$1.75, postpaid \$1.90.



**Weed Scythe, Heavy Pattern.** 26 to 28-in. \$1.75, postpaid \$1.90.

**Bush Scythe, Heavy Pattern.** 18 to 22-in. \$1.75, postpaid \$1.90.



**English Riveted Back Scythe.** 30 to 34-in. \$3, ppd. \$3.15.

**German Blue Blade Scythe.** Width of blade at heel, 4 in., length 30 in. Thin blade type; fully warranted. \$1.75, postpaid \$1.90.

**German Blue Blade Scythe.** With American heel. Can be used with patent snath. \$1.75, postpaid \$1.90.

**Austrian Scythe.** Same type as German Blue Blade. Straw-tempered finish. \$1.85, postpaid \$2.

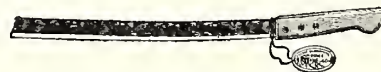
**Sharpening Outfit for German and Austrian Scythes.** Consists of Hammer (without handle) and Anvil. Weight, 1 lb. \$1.25, postpaid \$1.35.



**Patent Grass Snath No. 50.** With loop, bolt, and nut. \$1.50, postpaid \$1.75.

**Bush Snath No. 100.** With 2 rings and 2 wedges. \$1.75, ppd. \$2.

**Straight Snath, S3.** For German and Austrian Scythes with ring and wooden wedges. \$1.25, postpaid \$1.40.

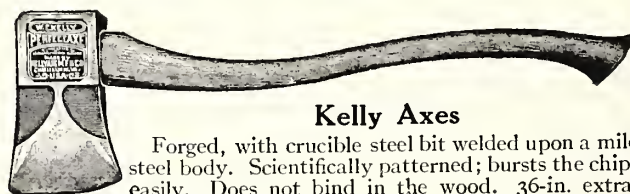
**Village Blacksmith Corn Knives**

**No. 1.** Crucible tool steel, anvil finish; blade  $16\frac{1}{2}$  in. long,  $1\frac{1}{4}$  in. wide. 65 cts., postpaid 75 cts.

**No. 2.** Same as No. 1, except blade is  $1\frac{3}{4}$  in. wide. 75 cts., postpaid 85 cts.



**Blood's Handled Bush Hook.** Hand-forged blade; 34-in. hickory handle. \$1.75, postpaid \$1.90.

**Kelly Axes**

Forged, with crucible steel bit welded upon a mild steel body. Scientifically patterned; bursts the chips easily. Does not bind in the wood. 36-in. extra-quality hickory handle.

Single Bit, assorted  $3\frac{1}{2}$ -lb. to  $5\frac{1}{2}$ -lb. \$2.25, postpaid \$2.50.  
 Double Bit, assorted  $3\frac{1}{2}$ -lb. to  $5\frac{1}{2}$ -lb. \$2.75 postpaid \$3.

## Little Wonder Hedge Trimmer



Top Cutting

Makes hedge-cutting a positive pleasure.  
Trims every variety of hedge grown.  
Accomplishes as much in one hour in the cool of the day as can be done in ten hours with hand shears.

Guaranteed to cut from five to ten times faster than hand-shear method and to do better work—more even.

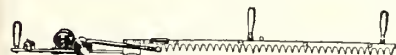
The last word in modern hedge-trimming, barring none.

Sturdily built—simple in construction.

Weight of machine from ten to sixteen pounds, according to size.

Various attachments adapt the machine for use on flat, round, or pivot tops, also side cutting.

Thousands in use in the United States and foreign countries. Ask for special circular.

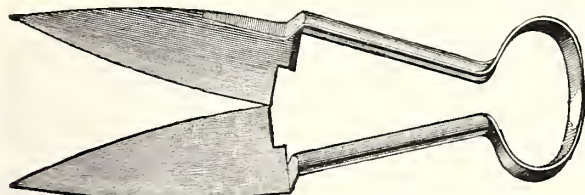


Electric-Driven Trimmer

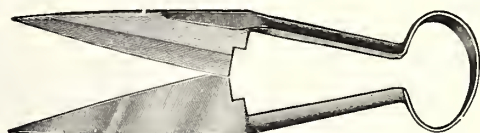


Side Cutting

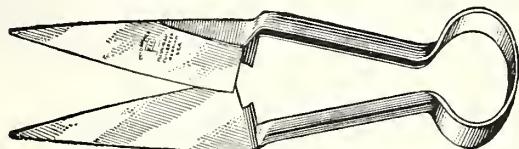
|                             | Electric | Hand-driven |   |
|-----------------------------|----------|-------------|---|
| 30-inch Hedge Trimmer ..... | \$103 00 | \$25 00     | Lawn Clipper Attachment for Hedge Trimmers .....\$18 00 |
| 40-inch Hedge Trimmer.....  | 106 50   | 27 50       | Side-Cutting Carriage for Hedge Trimmers..... 4 50      |
| 60-inch Hedge Trimmer.....  | 114 00   | 35 00       | 30-inch Lawn Weed Clipper, complete.....35 00           |
|                             |          |             | 40-inch Lawn Weed Clipper, complete.....40 00           |



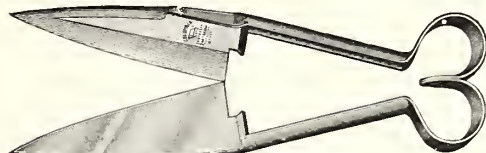
No. 11. Grass Shear. Trowel shank. 5½-in. Semi-polished. 60 cts., postpaid 70 cts.



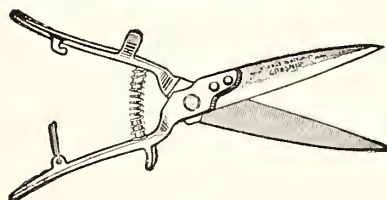
No. 4. Grass Shear. Straight shank. 5½-in. 65 cts., postpaid 75 cts.



No. 0267. Grass Shear. Trowel shank. 6-in. Full polished. \$1, postpaid \$1.10.



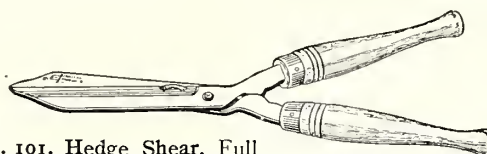
No. 1914. Sheep Shear. Straight shank. 6-in. Full polished. Highest grade. \$1.75, postpaid \$1.90.



**Grasnip**

No. 1. 6-in. Full polished hollow-ground blades of cutlery steel, exacting temper. Malleable handles. \$1, postpaid \$1.10.

No. 2. 6-in. Semi-finished hollow-ground blades, with polished cutting bevels. Malleable handles. 85 cts., postpaid 95 cts.

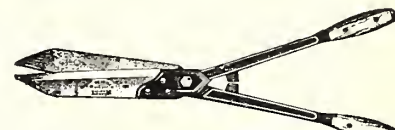


No. 101. Hedge Shear. Full polished blades, notched for pruning. 9-in. \$2.25, postpaid \$2.50; 10-in. \$2.50, postpaid \$2.75.

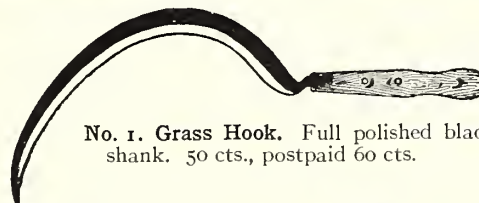
No. 100L. Hedge Shear. 6-in. Full polished blades. \$1.50, postpaid \$1.70.

### Heinisch Hedge Shears.

One serrated edge and one knife edge; forged steel handles; tempered steel blades; substantial 7/8 inch bolt with nut and lock washer. Gun metal finish; polished blades. 6½ in., \$2.75; 8 in., \$3.25; 9 in., \$3.50; 10 in., \$4. Postage extra 25 cts.



**Doo-Klip Grass Shear.** Operates with an easy up and down movement. \$1.25, postpaid \$1.40.



No. 1. Grass Hook. Full polished blade, offset shank. 50 cts., postpaid 60 cts.

No. 3. Grass Hook. With offset shank, forged cutlery steel blade. 65 cts., postpaid 75 cts.



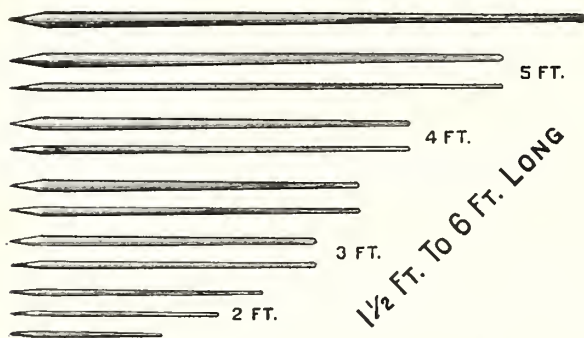
No. 2. Forged crucible steel blade; straight shank. 50 cts., postpaid 60 cts.



No. 33. Grass Hook. Same style as No. 3, but made of heavier material for rougher usage. 75 cts., postpaid 85 cts.

## Stakes

Wooden, Round Tapering, painted green. Light Stakes are made from western white pine and the heavy from cypress.



|                                 | Doz.   | 100    |
|---------------------------------|--------|--------|
| 1½ ft. long, light weight.....  | \$0 35 | \$2 00 |
| 2 ft. long, light weight.....   | 50     | 3 50   |
| 3 ft. long, light weight.....   | 1 00   | 6 75   |
| 4 ft. long, light weight.....   | 1 40   | 9 75   |
| 3 ft. long, heavy weight.....   | 1 50   | 10 75  |
| 4 ft. long, heavy weight.....   | 1 85   | 14 25  |
| 5 ft. long, heavy weight.....   | 2 50   | 18 25  |
| 6 ft. long, heavy weight.....   | 3 00   | 22 25  |
| Natural Bamboo. 8 ft. long..... | 75     | 4 00   |

|   | 100    | 1,000  |
|---|--------|--------|
| <b>Hyacinth. Painted green. 1 ft.</b> ..... | \$0 35 | \$2 50 |
| 1½ ft.....                                  | 45     | 3 50   |

**Japanese Bamboo Canes.** Dyed green. These Canes are cheap, light, and of uniform pencil thickness throughout. Just the thing for pot plants and plants that need just a light support.

|             | Doz.   | 50     | 100    | 1,000  |
|-------------|--------|--------|--------|--------|
| 2 feet..... | \$0 15 | \$0 40 | \$0 65 | \$4 50 |
| 3 feet..... | 20     | 60     | 1 00   | 7 00   |
| 4 feet..... | 30     | 90     | 1 50   | 9 50   |

**Heavy Bamboo Tonkin Stakes.** These are of even diameter throughout, strong, and withstand weather conditions and the dampness of the earth on account of their natural outside polish. Make excellent supports for dahlias and plants of this type.

|                              | Doz.   | 50     | 100    |
|------------------------------|--------|--------|--------|
| 4 feet, ½ to ⅝-in. diam..... | \$0 75 | \$2 25 | \$4 00 |
| 5 feet, ⅝ to ¾-in. diam..... | 1 25   | 3 75   | 7 00   |
| 6 feet, ¾ to ⅞-in. diam..... | 1 35   | 4 00   | 7 50   |
| 8 feet, ⅞ to 1-in. diam..... | 1 50   | 4 25   | 8 00   |

## Garden or Pot Labels (Painted)

|                           | 100    | 500    | 1,000  |
|---------------------------|--------|--------|--------|
| 4 in. x ⅝ in. wide.....   | \$0 45 | \$1 50 | \$2 50 |
| 5 in. x ⅝ in. wide.....   | 50     | 1 75   | 3 00   |
| 6 in. x ⅝ in. wide.....   | 60     | 2 15   | 3 75   |
| 8 in. x ⅞ in. wide.....   | 1 15   | 4 50   | 8 75   |
| 10 in. x ⅞ in. wide.....  | 1 25   | 5 25   | 10 00  |
| 12 in. x 1⅛ in. wide..... | 1 65   | 7 25   | 14 00  |
| 3½ in., copper-wired..... | 60     | 2 00   | 3 50   |

## Wire Hanging Baskets

|  | Each   | Doz.   |
|--|--------|--------|
| Hand-made; enameled foliage-green..... |        |        |
| 8-in. diam.....                        | \$0 35 | \$3 75 |
| 10-in. diam.....                       | 45     | 4 75   |
| 12-in. diam.....                       | 55     | 6 00   |
| 14-in. diam.....                       | 65     | 7 00   |
| 16-in. diam.....                       | 75     | 8 00   |

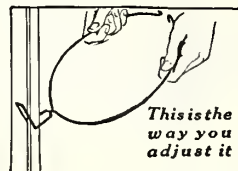
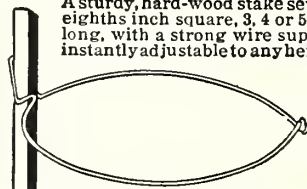


Wire Hanging Basket

**NATURAL GREEN MOSS**, in sheets.  
Bag, about 2 bushels, \$3.

## Adjusto Plant Supports

A sturdy, hard-wood stake seven-eighths inch square, 3, 4 or 5 feet long, with a strong wire support instantly adjustable to any height.



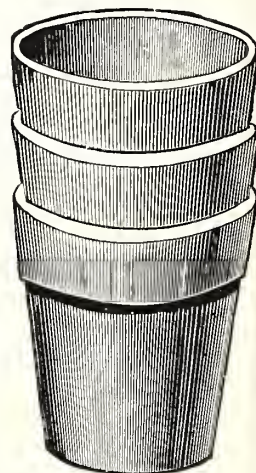
This is the way you adjust it

Saves space because it keeps your plants in the air and sun, and from the ground. Enables you to cultivate close to the plant. "Adjusto" supported tomatoes ripen to perfection. "Adjusto" supports bring out the full beauty of Dahlias, Chrysanthemums and all the slender, tall-growing varieties.

\$7 per 100; 2 ft. 15 cts. each, \$1.50 per doz., \$10 per 100.

## Earthen Flower Pots Standard Pots

| Inside diam.       | Each   | Doz.   | 100    |
|--------------------|--------|--------|--------|
| 2½ in.....         | \$0 03 | \$0 30 | \$2 00 |
| 4 in.....          | 05     | 50     | 3 25   |
| 5 in.....          | 09     | 90     | 6 00   |
| 6 in.....          | 14     | 1 25   | 9 00   |
| 7 in.....          | 20     | 2 25   | 15 00  |
| 8 in.....          | 30     | 3 00   | 20 00  |
| 9 in.....          | 45     | 4 50   | 30 00  |
| 10 in.....         | 60     | 6 00   | 42 00  |
| 12 in.....         | 1 25   | 12 00  |        |
| Cemetery Vase..... | 35     | 3 75   |        |



Standard Flower Pots

## Flower Pot Saucers

| Inside diam. | Each   | Doz.   | 100    |
|--------------|--------|--------|--------|
| 4 in.....    | \$0 04 | \$0 40 | \$2 50 |
| 5 in.....    | 05     | 50     | 3 25   |
| 6 in.....    | 08     | 75     | 4 75   |
| 7 in.....    | 10     | 1 00   | 6 50   |
| 8 in.....    | 14     | 1 25   | 9 00   |
| 9 in.....    | 18     | 1 75   | 12 00  |
| 10 in.....   | 20     | 2 00   | 14 50  |
| 12 in.....   | 30     | 3 00   | 22 00  |

## Azalea Pots

| Inside diam.              | Each   | Doz.   | 100    |
|---------------------------|--------|--------|--------|
| 6 in. x 4¾ in. deep.....  | \$0 13 | \$1 25 | \$9 25 |
| 7 in. x 5¼ in. deep.....  | 25     | 2 10   | 15 00  |
| 8 in. x 5¾ in. deep.....  | 30     | 3 00   | 22 00  |
| 9 in. x 6¼ in. deep.....  | 45     | 4 50   | 33 50  |
| 10 in. x 6¾ in. deep..... | 60     | 6 00   | 45 00  |

## Low Pans

| Inside diam.             | Each   | Doz.   | 100    |
|--------------------------|--------|--------|--------|
| 5 in. x 3¼ in. deep..... | \$0 10 | \$1 00 | \$6 00 |
| 6 in. x 3½ in. deep..... | 13     | 1 25   | 9 25   |
| 7 in. x 3¾ in. deep..... | 25     | 2 10   | 15 00  |
| 8 in. x 4 in. deep.....  | 30     | 3 00   | 22 00  |

**Glazed Flower Pots.** Green or yellow.

| Inside diam. | Each   | Doz.      | 100  |
|--------------|--------|-----------|------|
| 6 in.....    | \$0 60 |           |      |
| 4 in.....    | \$0 30 | 7 in..... | 90   |
| 5 in.....    | 50     | 8 in..... | 1 25 |

Flower Pots are sent by express or freight, not prepaid

## The Timesaver Plant Support

**Your Flower- and Vegetable-Garden's Best Friend.** Placed and adjusted to height and to any size of loop almost instantly. For shrubby, tomatoes, dahlias, peonies, roses, and most other vegetables and flowers grown outdoors.

| Length     | Doz.   | Postpaid |
|------------|--------|----------|
| 2½ ft..... | \$0 75 | \$0 85   |
| 3 ft.....  | 1 00   | 1 15     |
| 3½ ft..... | 1 45   | 1 60     |
| 4 ft.....  | 2 20   | 2 35     |
| 5 ft.....  | 2 75   | 2 95     |
| 6 ft.....  | 3 00   | 3 25     |





Patented Jan. 23, 1917

The small holes near each corner at the top of the box are for inserting small wires or chains for hanging the box in parlors, libraries, porches, etc. Made of Armco galvanized ingot iron, which is noted for its rust-resisting qualities and will last for many years. Leak-proof and rust-proof. No transplanting—you can move Savo boxes indoors or out and have beautiful flowers and plants the year round.

## Self-Watering **SAVO** Sub-Irrigating

### FOR WINDOWS, PORCHES, SUN-PARLORS ALL YEAR ROUND PLANT AND FLOWER BOX

Waters the growing plants from the bottom, making longer roots and better plants, leaving top-soil mealy and loose. No surface watering.

Plants are kept healthy and fresh the year around by absorbing the exact amount of water they require from below and allowing a perfect circulation of air to pass up through the soil, causing it to be mealy and loose. Blooms will be larger and foliage heavier than in any surface watered device.

### Made of Heavy Galvanized Steel and Finished in Aluminum or Dark Green

| Model | Height | Width  | Length | Each   | Postpaid |
|-------|--------|--------|--------|--------|----------|
| A     | 8 in.  | 9½ in. | 23 in. | \$3 00 | \$3 20   |
| B     | 8 in.  | 9½ in. | 29 in. | 4 00   | 4 20     |
| C     | 8 in.  | 9½ in. | 35 in. | 4 50   | 4 75     |
| D     | 8 in.  | 9½ in. | 41 in. | 5 00   | 5 25     |
| E     | 8 in.  | 12 in. | 12 in. | 3 00   | 3 15     |
| F     | 12 in. | 12 in. | 12 in. | 3 50   | 3 70     |

These are outside measurements, including the ¾-inch roll rim.

|  |         |
|--|---------|
| B, Fernery, 9½ in. wide, 29 in. long, 30½ in. high; dark green | Each    |
| finish, with stand.  | \$10 00 |
| E, Fernery, 30 in. high, 12 in. square, with stand.            | 6 00    |
| G, Round Fernery, 12 in. in diameter, 31 in. high; dark green  |         |
| finish, with stand.  | 6 00    |
| H, Fernery, 36 in. high, 29 in. long, with stand.              | 18 00   |

Special sizes made to order when required. Ask for circular

#### Proper Irrigation

### The Perfecto Flower Box

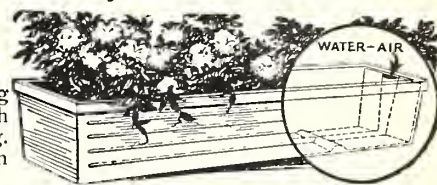
#### Proper Ventilation

The Perfecto Flower Box embodies correct, approved, scientific principles for raising luxuriant plants and flowers indoors or outside. Patented system with water entrance at both ends feeds water properly at roots of plants and circulates air beneath soil; keeps it from souring. Maximum beauty in the home or on the porch and rapid growth of plants made certain in winter or summer.

Furnished in the following sizes enameled in Green finish or Old Ivory finish. Specify color desired in ordering.

|  | Each   | Postpaid |
|--|--------|----------|
| 20 inches long, 6 in. deep, 7 in. wide | \$1 00 | \$1 15   |
| 26 inches long, 6 in. deep, 7 in. wide | 1 50   | 1 65     |
| 32 inches long, 6 in. deep, 7 in. wide | 2 00   | 2 20     |

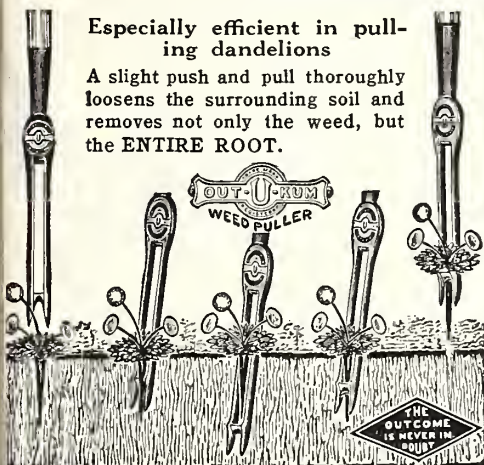
|  | Each   | Postpaid |
|--|--------|----------|
| 38 inches long, 6 in. deep, 7 in. wide | \$2 50 | \$2 70   |
| 44 inches long, 6 in. deep, 7 in. wide | 3 00   | 3 25     |



### The Out-U-Kum Weed Puller

**Especially efficient in pulling dandelions**

A slight push and pull thoroughly loosens the surrounding soil and removes not only the weed, but the ENTIRE ROOT.



It differs from all other Weed Pullers, most of which either cut the root or grip the weed above the ground, often breaking it off above the root. The Out-U-Kum Weeder is not a novelty, but a practical working tool. The illustration shows how easy it is to use, also how the weed is entirely removed. Price 75 cts., postpaid 85 cts.

### Cedar Plant Tubs

The Richmond Style Tree Tubs are made of seasoned, selected Virginia white cedar, are bound with electric welded wire hoops (galvanized), three hoops to each, except the No. 1 size which has two. The Richmond style fills a long-felt want for a cheap type of Plant Tub and is being used by many large florists in place of earthen pots. These Plant Tubs are nicely painted with the best oil paints—a handsome green color inside and out. The tops of the staves are slightly beveled, which gives them a neat, trim finish. Regularly furnished with no handles.



| Size   | Inside top diam. | Inside bot. diam. | Inside depth | Each   |
|--------|------------------|-------------------|--------------|--------|
| No. 1  | 6 in.            | 5 in.             | 6 in.        | \$0 65 |
| No. 3  | 8 in.            | 6 in.             | 8 in.        | 75     |
| No. 5  | 10 in.           | 7½ in.            | 9 in.        | 85     |
| No. 7  | 12 in.           | 9 in.             | 11 in.       | 1 25   |
| No. 9  | 14 in.           | 11 in.            | 13 in.       | 1 90   |
| No. 11 | 16 in.           | 12½ in.           | 15 in.       | 2 25   |
| No. 13 | 18 in.           | 14½ in.           | 17 in.       | 3 25   |

If stamped steel handles are desired, add 25 cents per tub, extra

### Little Giant Self-Setting Mole Trap

**SIMPLEST—SUREST—SAFEST**

It is made of all steel and heavily tinned, which makes it a very attractive as well as a durable trap. The spears are made of spring steel and are therefore smaller than those made of soft steel, piercing a mole more easily.

16½ inches in height over all, 4½ inches wide, made of ⅝-inch band steel. Price, \$1; postpaid \$1.20.

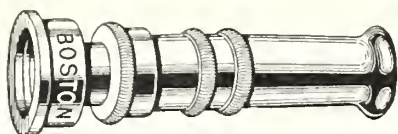


### Mo-Lo

MO-LO is a preparation for helping to keep the lawn in good condition, for it exterminates the mole whose grass-root-eating habit and building of continuous runs or mounds make all lawns unsightly. It is surer and much cheaper than traps, as one package of MO-LO will do the work better than five mole-traps.

The smell of MO-LO attracts the mole, they eat it and die underground, leaving no odor.

**Directions.** Punch a hole in top of mound or run, drop in one MO-LO and cover lightly, do this every 8 to 10 feet. Keep MO-LO away from children and domestic animals, as it is poisonous. Pkg. 25 cts., postpaid.



### Boston Spray Nozzle

Built to last. It gives the utmost satisfaction. None better made. Your garden hose line is incomplete without it. 75 cts.; postpaid 80 cts.

### Garden Hose



**Good Luck.** This  $\frac{5}{8}$ -inch 6-ply Garden Hose is the biggest value on the market. Nothing approaching its quality has ever been offered at the price. This Hose is constructed similar to Bull Dog and is "built to stay alive." Here is real value for the customer who can afford only a moderate price. 25-ft. length \$3.75; 50-ft. length \$7.25; couplings included.



**Bull Dog.** This  $\frac{5}{8}$ -inch 7-ply Garden Hose is the most famous brand on the market. It is the recognized standard and is well known as "the kind that lasts longest." Letters come to us frequently, telling of lengths in service of fourteen to fifteen years. 25-ft. length \$4.50; 50-ft. length \$8.75; couplings included.

**Bull Dog Cord.** Made of two braided plies of double-twisted hawser cord moulded into the heavy rubber wall, an inseparable integral part of the construction. This Hose is very flexible, will not kink, easy to handle and use, and is built to withstand hard knocks and abuse. Constructed especially for greenhouse, golf course, and contractors' use. Money cannot buy a better garden Hose.  $\frac{5}{8}$ -in. diam., 25-ft. length, \$5.75; 50-ft. length \$11.25, couplings included.



**Bull Dog Spray Hose.** This was thoroughly tested with numerous mixtures of blue stone, mineral oil, and arsenate solutions before being put on the market. A strictly first-class Hose for power sprayers.  $\frac{1}{2}$ -inch, 7-ply, 25-ft. length \$8.75.

**Tiruco Spray Hose.** Made specially for spraying materials. Will stand 400 pounds working pressure. Fully guaranteed. Any desired length.  $\frac{1}{2}$ -inch diameter, per ft. 35 cts.

### Watering Pots

Heavy galvanized iron, reinforced; well made and substantial. Each pot has a long spout, with one fine and one coarse rose. Will outlast two or three ordinary pots.

#### Round Pattern.

|                |        |
|----------------|--------|
| 8-quart. ....  | \$5 25 |
| 10-quart. .... | 5 50   |
| 12-quart. .... | 6 00   |

### GALVANIZED SPRINKLERS

One-piece seamless spout. Detachable rose. Boss on top and back handles. Extra heavy.

|             |        |             |        |
|-------------|--------|-------------|--------|
| 8-qt. ....  | \$1 50 | 12-qt. .... | \$1 85 |
| 10-qt. .... | 1 65   | 14-qt. .... | 2 00   |

### Lawn Life Sprinkler

Good-looking; highly efficient. The center disc is of extra-heavy brass, carefully drilled.

There is a brass swivel hose connection as on better Sprinklers, for easy attachment to the hose.

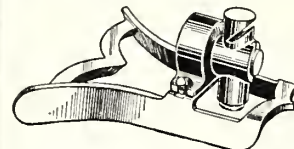
The fine sprays cover circles up to 35 feet in diameter. Price \$1; postpaid \$1.10.



### The Tu-Way Lawn Sprinkler

Really two sprinklers in one, for it covers both complete and half circles. No wrench needed.

Just turn the nozzle over and it changes from full to half circle. Will not clog. Does not easily turn over. Covers 30-foot circle under ordinary pressure. The half-circle spray is fine for watering borders, etc. The very best small Sprinkler made. Fully guaranteed. Price \$1.25; postpaid \$1.35.



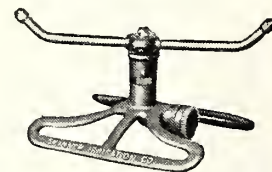
### The Mor-Rain Sprinkler

As a general, all-round Sprinkler, a Sprinkler that comes nearer to meeting all requirements for the average size lawn than any other Sprinkler made, the Mor-Rain is, without question, the ideal.

It waters both full and half circles. To change from a complete circle to a half circle, just give the nozzle head a half-turn, and the job is done.

If you have open spaces in your lawn from 50 to 100 feet in diameter, you will do well to choose Mor-Rain to do your watering.

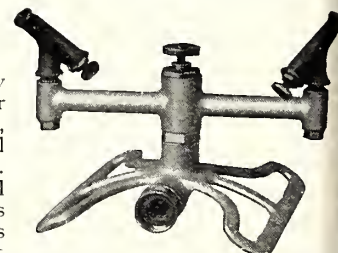
Built to give years of service. The head and arms are made of brass. The base is of iron and weighs 3 pounds so that it cannot easily be upset. Height, 8 inches; fully guaranteed. Price \$3; postpaid \$3.25.



### Sod-Soaker Sprinklers

Big or little circles, heavy stream, fine mist, revolving or stationary, fast or slow motion, full circle or half circle, are all alike to this splendid Sprinkler.

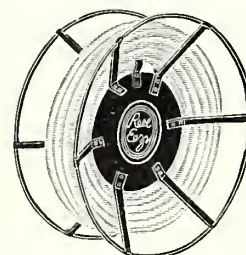
The Tobin bronze bearing add years to its life. Thirty pounds pressure gives the best results and waters circles up to 50 feet in diameter. Price \$4.75; postpaid \$4.90.



### Reeleezy Hose Reel

Put the socket of a hose in the ring and roll along. The hose comes right with you. One motion. Just roll. When you get to the end of the line, pick it up, hang it up, or stand it in the corner out of the way.

Holds 75 feet of  $\frac{3}{4}$ -inch, or 100 feet of  $\frac{5}{8}$ -inch, garden hose. Fully loaded it doesn't take up any more room



than the hose itself. Hang it up anywhere. Self-balancing, any part is the top.

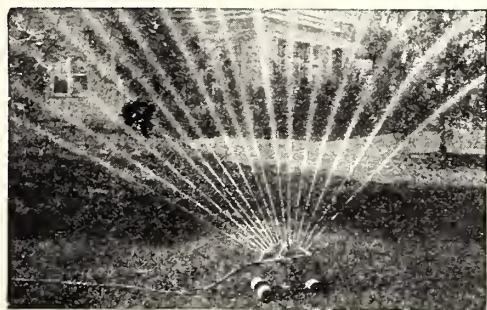
It will stand more hard knocks than it will ever get in ordinary service. Price \$2.25; postpaid \$2.45.

To keep a neatly trimmed lawn use the Planet Jr. Edger shown on page 105



## The "Ready Rainer"

Here is the solution of your watering problem for garden, lawn, and borders—a scientific irrigation line that you can move in a jiffy wherever you want it. Made of  $\frac{3}{4}$ -inch galvanized pipe, fitted at 2-foot intervals with the famous Skinner System Silver Stream Nozzles. Can be attached to your hose and at ordinary city pressure covers a strip 50 by 18 feet. Made in two 9-foot sections, connected by a patented coupling which you can put together with your hands. Furnished complete and ready to erect. Three pointed iron rods support the line—push them into the ground, attach the hose, and turn on the water. With each line we furnish a set of special nozzles, which will break the water into a very fine spray. The fine spray nozzles in the line cover a strip 30 feet wide—15 feet on either side. Price complete, \$11.



## The "Rain Wave"

A MINIATURE SKINNER SYSTEM

This compact, sturdily built unit spreads a fan-shaped spray over a space 50 to 60 feet in width. The strong, dependable motor waves the spray slowly back and forth over a space 50 to 60 feet in length.

You can depend on efficient watering over 2,500 to 3,600 square feet of lawn or garden at one setting.

This miniature system weighs only seventeen pounds. A small valve stops the oscillator at any desired point. By a simple adjustment, the length of spray watered can be varied from the maximum of 60 feet down to 12 feet.

Does its best work on 30 to 40 pounds and uses only 4 gallons of water per minute. Price, \$35.

# IRON AGE

## TRACTION SPRAYERS with UNDER-LEAF NOZZLES

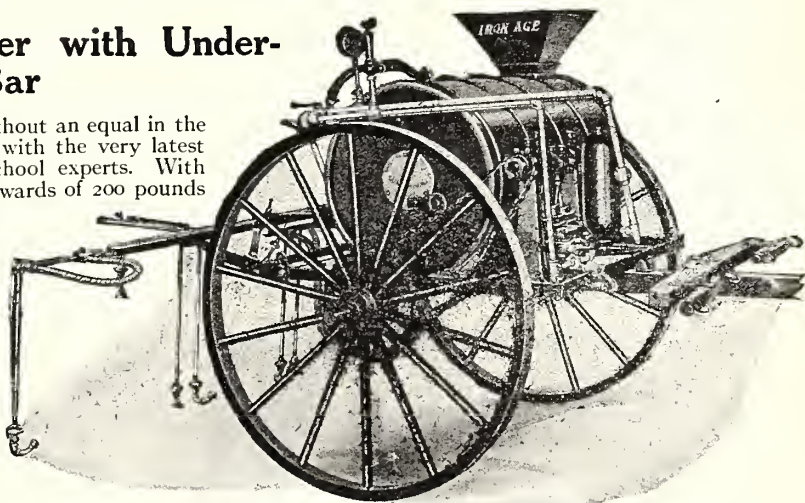
### Four-Row Traction Sprayer with Under-Leaf Spray Bar

The No. 357 Iron Age Sprayer is absolutely without an equal in the Traction Sprayer field, conforming in every way with the very latest requirements of Government and agricultural school experts. With the team walking at ordinary speed it delivers upwards of 200 pounds pressure, producing a foglike spray which completely envelops the plants when used with the drop-nozzle spray bar. This machine is equipped with the Iron Age Pressure Retainer and Pump Relief. This system locks the pressure in the pressure chamber when the spray is shut off, relieves the pump of back-pressure to make turning easy at ends of rows, and gives full pressure immediately when solution is turned on again. The 100-gallon tank is cylindrical, allowing a large revolving dasher to sweep near sides and bottom to maintain even strength of solution. The body, valve chambers, and frame of the Triplex Pump are cast together in one piece. The pistons work through stuffing-boxes, avoiding the use of leathers or rubbers which corrode and wear out. Trouble from corroding or chipping cylinder walls is also avoided. Crankshaft bearings are self-aligning. The valves are bronze balls set in removable cages. The Iron Age Triplex is a pump made especially for handling the heavy, corrosive materials used in spraying—it is not merely an ordinary pump adapted to the need.

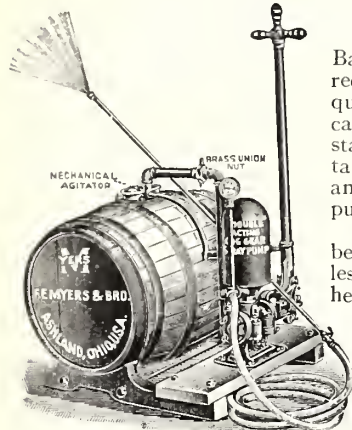
The Nixon Drop-Nozzle Spray Bar shown here sprays four rows with twelve nozzles, four directing the spray downward on top of the plants, and the others spraying at an angle upward under the leaves. It can be adjusted in almost any way, raised, lowered, shifted to one side to offset wind-pressure. The nozzles can be turned in any direction and moved toward or from the row.

LOUIS GOUBEAUD, of Evans City, Pa., reported the results of spraying demonstration to the Farm Bureau office yesterday. Mr. Goubeaud's increase from spraying potatoes planted from 22 bushels of Irish Cobbler seed was 50 per cent, or 87½ bushels per acre. The sale of this increase paid the entire cost of his Sprayer in one year. This demonstration was the first in this section of Butler County and one of Mr. Goubeaud's neighbors has already purchased a Sprayer for next year. The sale of disease-free seed potatoes is also being greatly increased because of the results of this demonstration. (Copy of news article, November 14, 1922.)

Special catalogue and prices on request



### Myers Cog Gear Spray Pump Double Acting



This is our most popular Barrel Spray Pump, and is recommended to those who require a Sprayer of exceptional capacity and durability. A constant high pressure can be maintained with little or no exertion, and one man can operate this pump without fatigue.

With brass valves and ground bevel brass seats, 2-inch seamless brass removable cylinder, hemp-packed plunger, double lever shut off discharge.

Adapted for spraying under heavy pressure, mounted complete, occupying smallest possible space. Will fit in an ordinary farm wagon box.

No. R316B, Pump complete, 50-gallon barrel mounted on skids, with pressure gauge, one 15-foot lead of  $\frac{3}{8}$ -inch 7-ply discharge hose, one Fembro Fig. 1290 nozzle, one 8-foot pipe extension, with lever shut off and mechanical agitator. Price \$49.

### The Myers Portable Sprayer

With Cog Gear Spray Pump and Dasher Agitator

A handy outfit suitable for spraying trees, whitewashing, painting, etc. The tank is made of extra-heavy galvanized iron, reinforced at top and bottom by steel bands, and hung in the frame on trunnions. The pump is securely attached to the tank by means of a clamp connected direct to the channel iron that surrounds the top of the tank held in position by one thumb-screw. The handle can be located at any point desired.

Equipped with 15 feet of  $\frac{1}{2}$ -in. hose, 8 foot extension, and Vermorel nozzle. Capacity 12  $\frac{1}{2}$  gallons.

R336B. Single Wheel as illustrated; wheel has 3-inch tire. \$23.50. Whitewash nozzle, extra \$1.

R337B. Double wheel. Particularly adapted for greenhouses, dairy-barns, and poultry-houses. Handles are short, to permit turning in narrow

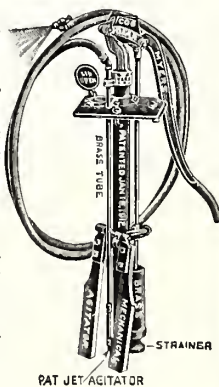
alleys. Wheels have  $1\frac{1}{4}$ -in. tire. Price \$23.50. Whitewash nozzle, extra \$1.

### Myers Cog Gear Barrel Spray Pump

Cylinder, Valves, Valve Seats, and Discharge All Brass. 2-inch Cylinder

The construction is such that the entire Pump fits inside the barrel containing the liquid, being bolted fast at its upper end to the head of the barrel. By this arrangement the working parts are entirely submerged in the liquid that is to be sprayed, thereby avoiding all possibilities of losing priming, doing away with the necessity of a suction pipe, placing the agitator in the bottom of the liquid in a simple form, and also doing away with a large number of complicated parts. Base fits 8 x 8-inch hole. Has bronze ball valves and brass seats. The plunger is self-expanding.

No. R318B, Myers Cog Gear Barrel Spray Pump, with one lead of 15 feet of  $\frac{1}{2}$ -inch 5-ply discharge hose, graduating Vermorel nozzle, and mechanical agitator, without Barrel, \$14.50.



### The Myers Compressed Air Sprayer

Has Cut-Off Between Hose and Tank Adjustable Long Distance Spray Nozzle

The Myers Compressed Air Sprayer is built in two sizes: 2  $\frac{1}{2}$  and 4  $\frac{1}{4}$  gallons capacity (both over-size) that meet all demands for this style of Sprayer. The Tank is made of heavy galvanized iron or brass. The side walls are double seamed, riveted, and soldered. The top and bottom are extra-heavy material with flanged edge over which the side walls are turned and thoroughly soldered. Has  $1\frac{3}{4}$ -inch brass tube cylinder. The nut is operated by lugs on the lower part of the handle, which engage in opening at the top of the nut. By means of the lugs on the handle the nut can be screwed tightly to the top of the tank, and at the same time lock the plunger in position, and also permits of the tank being carried by the handle when desired.

The nozzle is a special feature of this Sprayer. By means of the small lever the spray can be adjusted from a broad, fine spray into a long distance spray, throwing water 20 feet. The Valve is simple and effective. Can be removed instantly.

|  | Postpaid |        |
|--|----------|--------|
| No. 1296. 2 $\frac{1}{2}$ -gal. Galvanized Tank..... | \$5 00   | \$5 25 |
| No. 1296B. 2 $\frac{1}{2}$ -gal. Brass Tank.....     | 8 00     | 8 25   |
| No. 1297. 4 $\frac{1}{4}$ -gal. Galvanized Tank..... | 6 25     | 6 60   |
| No. 1297B. 4 $\frac{1}{4}$ -gal. Brass Tank.....     | 9 50     | 9 85   |
| Pipe Extension, with side outlet nozzle.....         | 1 00     | 1 10   |

### Hudson Perfection Sprayer

For work of any kind requiring a high-pressure, compressed-air Sprayer, the Perfection is supreme. Handles all insecticides, fungicides, disinfectants, whitewash, cold-water paints, etc. It is very practical for use around the orchard, vineyard, truck-garden, or farm; in dairy-barns, hog-houses, poultry-coops, etc.

The tank is 7  $\frac{1}{2}$  inches in diameter, 20 inches high, with a capacity of approximately 4 gallons. All seams are riveted and soldered. Made of first-quality copper-bearing galvanized or brass sheets. Brass is recommended for use with corrosive solutions because it better resists their action.

The pump is seamless brass tubing, 1  $\frac{3}{4}$  inches in diameter, 15  $\frac{1}{2}$  inches long, and may be removed from tank with ease. Equipped with 2 feet of 5-ply special spray hose, nozzle designed for high-pressure work, and 12-inch brass extension rod as shown. Standard  $\frac{1}{4}$ -inch iron pipe threads permit using a longer rod when necessary. Postpaid

|                                |        |        |
|--------------------------------|--------|--------|
| No. 110G. Galvanized Tank..... | \$6 25 | \$6 60 |
| No. 110B. Brass Tank.....      | 9 50   | 9 85   |



### Hudson Junior Sprayer

Is made to meet the demand for a high-pressure compressed-air sprayer of small capacity. It is a well-made, substantial Sprayer, thoroughly tested under actual working conditions at the factory.

The tank is 6  $\frac{1}{2}$  inches in diameter, 17 inches long, and capacity is about 2  $\frac{1}{2}$  gallons. Made of first-quality brass, or copper-bearing galvanized sheets.

The pump is seamless brass tubing. Fitted with 2 feet of 5-ply special spray hose, nozzle, and 12-inch brass extension rod, as shown. Standard  $\frac{1}{4}$ -inch iron pipe threads permit using a longer rod when necessary. Postpaid

|                                |        |        |
|--------------------------------|--------|--------|
| No. 140G. Galvanized Tank..... | \$5 00 | \$5 25 |
| No. 140B. Brass Tank.....      | 7 50   | 7 75   |



## Acme Compressed-Air Sprayer

This is truly "the acme of perfection," in Compressed-Air Sprayers. Well adapted for the farmer, stockman, fruit-grower, poultryman, and florist.

**Tank**, strongly galvanized steel or brass, lap seamed body, heavy convex heads seamed in by special machinery, all seams well soldered and securely riveted. Diameter tank, 7 inches; height, 20 inches; capacity, 4 gallons. Tested to 60 pounds air-pressure.

**Pump**, seamless brass cylinder, 1 3/4 inches diameter, 15 inches long, fitted with oil-resisting rubber check valve and sealed into the top of the tank with heavy threads, absolutely preventing air escaping at this point. Bright steel plunger rod, quick-acting efficient plunger of our own special type. Pump easily removed for filling.

**Nozzle**, solid brass with spring of phosphor bronze, which will not corrode, absolutely non-clogging. Spray covers even all over, leaving no blank space in center as is the case with other nozzles. Each joint is absolutely water and air-tight. Back packing gland is adjustable, which avoids taking nozzle apart in case the packing gives out. Sprayer is under perfect automatic control, and, due to its exceptional fine spray, saves time and material. Nozzle interchangeable; can be taken apart and reassembled in a few seconds. Convenient shoulder strap attached to the tank with snaps.

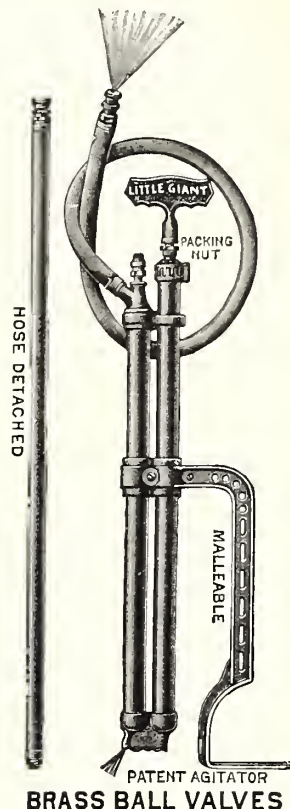
|  |        |                 |
|--|--------|-----------------|
| No. 345. Galvanized steel tank with 12-in. brass curved extension rod..... | \$6 25 | Postpaid \$6 50 |
| No. 346. Brass tank, with 12-in. brass curved extension rod.....           | 9 00   | 9 25            |
| 2-foot brass extension pipe extra.....                                     | 1 00   | 1 10            |

## Little Giant Sprayer

This Spray Pump is constructed entirely of brass. It is so arranged that the labor of pumping is all done on the downward stroke of the piston and nothing on the up. The effect of this operation while pumping is to hold the pump down. The foot-rest steadies the pump, holding it in position.

It is provided with a large air-chamber, and has brass ball valves and detachable hose. The nozzle throws a continuous spray and is not affected by the movement of the plunger. Will carry a pressure on the nozzle of from 50 to 100 pounds with very ordinary exertion. For spraying, it is arranged to discharge a fine jet in the bottom of the bucket to keep the solution thoroughly mixed and agitated, a feature peculiar to this pump only, and a very necessary feature to a Spray Pump.

Little Giant Brass Spray Pump, with agitator, complete with hose and Imperial combination fine- and coarse-spray and solid-stream nozzle, with malleable foot-rest, \$4, postpaid \$4.25. Whitewash Nozzle, extra \$1.



## Spraying and Whitewashing Machines

### Little Wonder, Style H

A Whitewashing Machine is one of the best investments for a farmer or poultryman. The various classes of work to which the machine can be applied are almost unlimited, and it will prove astonishing the amount of work which can be performed in a day by ordinary unskilled labor, while the expense of brushes, pails, ladders, and other tools of the painter's kit are entirely dispensed with.

Our "Little Wonder" Machine is made of heavy galvanized iron with all joints well riveted and soldered, and a powerful self-contained all-brass air-pump is furnished. They will be found invaluable for small classes of work, as around residences, barns, dairies, poultry-yards, greenhouses, gardens, etc., and will suggest themselves for a variety of uses other than that for which they are sold. They are provided with a bail handle and are very portable. Capacity of tank, 3 gallons of liquid.

We furnish 10 feet of 3/8-inch discharge hose, spray-cock and spray-nozzle with each machine. Price \$13.50, postpaid \$13.75.



Style H

### Star, Style D

In general use by some of the largest industries of the country. Recommended for those having a considerable amount of work to do. Capacity equal to work of ten men with brushes.

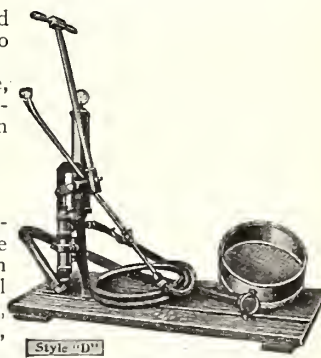
**Equipment.** Spray-pipe complete with 1/4-inch cock and spray-nozzle, one extra spray-tip, 200-pound pressure-gauge, special galvanized sieve, follower wrench, one length of 1-inch suction hose, and 10 feet of 1/2-inch "Star Special" discharge hose. Price \$36.

### Star, Style J

This is a very valuable machine, being strong and well built. The working parts are made of brass and will not corrode from the use of any liquids. One man can operate this machine alone and from 70 to 80 pounds pressure can easily be carried. Machine complete, as shown in the illustration (without pail for holding liquid—anything can be used for this purpose), with spray-pipe, spray-nozzle and cock, 10 feet of our "Star Special" 3/8-inch discharge hose, \$14.50, postpaid \$15.



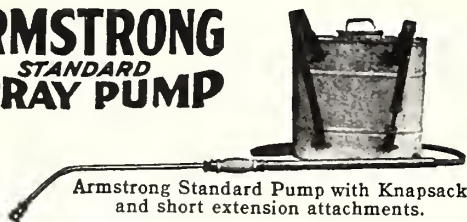
Style J



Style "D"

Circulars and Prices on larger Whitewashing and Painting Machines furnished on request

## ARMSTRONG STANDARD SPRAY PUMP



Armstrong Standard Pump with Knapsack and short extension attachments.

By different arrangements of the several nozzles regularly supplied, sprays of varying fineness—from a mist to a straight stream that carries 60 feet—are produced.

The Armstrong Standard Spray Pump is ideal for spraying liquid insecticides of all kinds, for whitewashing poultry-houses and cattle-barns, for spraying disinfectants in buildings or on animals and poultry, for fire-protection, for veterinary use, for washing windows, for washing autos—there is almost a daily use for the Armstrong Standard about the home, farm, garden, and orchard.

For bucket use, a short length of hose is supplied. To use it with barrel or tank for a larger orchard, a length of hose up to 25 to 30 feet is desirable. The work of spraying is always done from the ground. No ladder, long extension, or raised platform is needed. A large tree can be completely sprayed with ten or a dozen strokes of the Pump. The work is done rapidly and with a minimum of labor and, by reason of the equal strokes, spraying material is not dissipated.

For spraying young or scattered trees or truck crops, such as potatoes, tobacco, and the like, the knapsack and short curved extension are used with the Pump. With this equipment, the Armstrong Standard will spray potatoes, one row at a time, at the rate of an acre an hour or better.

The Standard is made entirely of brass; no leather packings; no iron casting to rust or decay; nothing to get out of order.

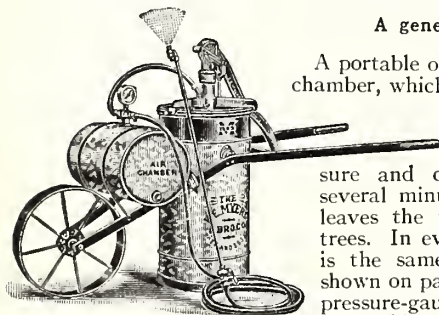
|   |        |        |
|---|--------|--------|
| With 3½-foot hose and full set of three nozzles . . . | \$5 50 | \$5 75 |
| Galvanized knapsack, capacity 5 gallons . . . . .     | 4 25   | 4 50   |
| Extension, 19 inches long . . . . .                   | 1 00   | 1 10   |
| Extra hose, ½ inch, per foot . . . . .                | 30     |        |

Postpaid

## Myers Portable Sprayer

WITH COG GEAR SPRAY PUMP AND DASHER AGITATOR

A general utility outfit

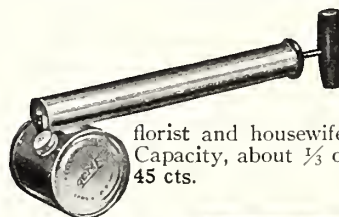


A portable outfit with six-gallon air-chamber, which assists in keeping up a steady spray with less effort by the operator.

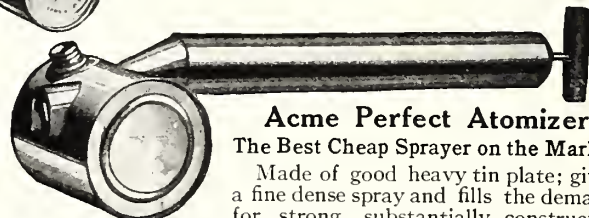
It will hold the pressure and continue to spray for several minutes while the operator leaves the pump to cover nearby trees. In every other particular, it is the same as outfit No. R336B shown on page 114. Equipped with pressure-gauge, dasher-agitator, 15 feet ½-in. discharge hose, 8-foot

extension, with lever cut-off and Vermorel nozzle. Capacity 12½ gallons. No. R339B, \$36.

## Acme Midget Atomizer



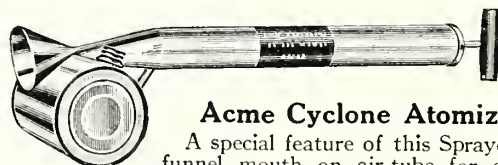
A small, compact, substantial, and very efficient Sprayer. Throws a fine, dense, uniform spray, and is an indispensable aid to the florist and housewife. Made of charcoal tin plate. Capacity, about ⅓ quart. Price 35 cts.; postpaid, 45 cts.



## Acme Perfect Atomizer

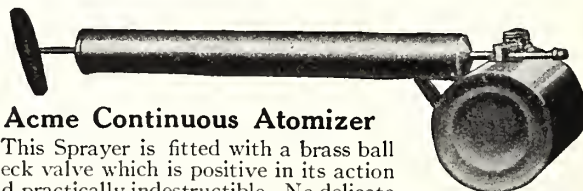
The Best Cheap Sprayer on the Market

Made of good heavy tin plate; gives a fine dense spray and fills the demand for strong, substantially constructed Sprayer. Capacity, 1 quart. Price 50 cts.; postpaid, 60 cts.



## Acme Cyclone Atomizer

A special feature of this Sprayer is the funnel mouth on air-tube for directing the spray, a desirable feature in spraying fly-repellent on horses, cattle, etc. Made of heavy bright tin plate. Capacity, 1 quart. Price 55 cts.; postpaid, 65 cts.



## Acme Continuous Atomizer

This Sprayer is fitted with a brass ball check valve which is positive in its action and practically indestructible. No delicate adjustments to maintain. Spray is produced on both in and out stroke of the plunger, doing twice the work with the same effort. Capacity, 1 quart. Tin, 85c.; ppd. 95c.; brass \$1.25; ppd. \$1.35.

## Wilson Dustite Respirator No. 2

SAVE YOUR LUNGS



Don't ruin your health. Protect your nose, mouth, throat, and lungs.

Farmers wear this Respirator for spraying and dusting trees and plants, threshing, tractor work, cleaning buildings, spreading fertilizers, handling crops, treating wheat for smut, using powders for cereal diseases, etc. Price, \$2.25, postpaid.

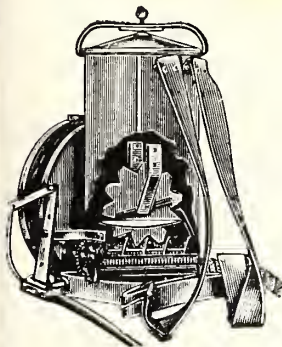
## Hayes Fruit-Fog Power Orchard Sprayers

Hayes Fruit-Fog Sprayers have been used successfully for nearly twenty years and are recommended and used by many of the largest fruit-growers throughout the country. Wherever trees are sprayed, the efficiency of Hayes Fruit-Fog is recognized. They are built complete from the raw materials in a modern factory with facilities for economical production, and designed by engineers of long experience in pump manufacture. Every outfit is tested and re-tested under excess working conditions and guaranteed for efficiency in high-pressure spraying. Made in sizes to meet the requirements for the small or large grower.

The new Hayes Triplex and Duplex high-pressure spray pumps are chain-driven. Enbloc castings defeat vibration; giant crank shaft insures perfected balance; long-wearing brass and bronze cylinders have new two-leather pistons for steadiest pressure; extra-hard, finely ground wrist-pins give double wear; drop-forged connecting rods, with renewable bearings and bronze bushings, eliminate dangerous side-thrust. Underslung trucks, with cut-under front wheels, follow wherever tractor or team can travel and without tipping. Short turns for close work. Wide tires for light draft. Ask for catalogue and price-list.

*"The man who has good crops to sell,  
Is the man who dusts wisely and well."*

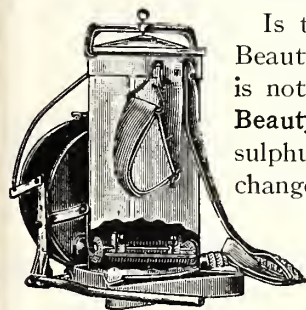
## American Beauty Duster



American Beauty

The American Beauty is the finest one-man Duster on the market. It is extensively used by the U. S. Department of Agriculture, many state universities, and the governments of many foreign countries. The American Beauty Duster is small in size and cost, but large in work accomplished. One man can dust trees up to 25 feet in height, and cover  $3\frac{1}{2}$  acres or more in a day and corresponding acreages in row crops. It is constructed of the finest materials and guaranteed to be satisfactory. Each part is interchangeable, and the user can make his own repairs. It weighs 16 pounds, and holds 15 pounds of dust. Price \$18.50; postpaid \$18.80.

## Blue Beauty Duster



Is the same size and shape as the American Beauty. The sifting device has been modified and is not quite so smooth and positive. **The Blue Beauty** is a very fine Duster for dry dusts, such as sulphur or lead arsenate. All parts are interchangeable, and the user can make his own repairs. Price \$15.50; postpaid \$15.80.

## California Beauty Duster

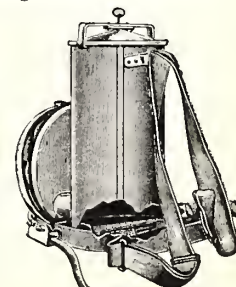
The very Duster for truck crops. The bellows action is so rapid as to give an almost continuous flow of dust and still be under complete control at all times, doing away with waste. This feature makes it ideal for row crops, such as potatoes, peas, beans, cabbage, etc. There are no rapidly revolving parts to give trouble. All parts are interchangeable, so the user can make his own repairs. **The California Beauty Duster** weighs less than 10 pounds, and holds 12 pounds of dust. Price \$12.50, postpaid \$12.75.



California Beauty Duster



At Work on High Trees



The California

## CROP INSURANCE

### To Dust Right is Crop Insurance

Be careful in making your applications; very little dust is required. Maximum protection is secured by thorough distribution. Nothing is gained by wasting material. Set the regulator to give just the amount of dust you want—no more. A very few pounds per acre is all that is required, and the extremely low cost of dust application makes it possible to give more frequent applications and get better results. The mistaken notion that "if a small dose is good, a large one is better" was exploded years ago, and "just right" is the watchword today.

With the Dusters shown on this page all you have to do is fill the hopper, clamp on the cover, and go to work. No water to haul; no mixing or messing about preparing a solution. The dry method of spraying is very effective if the right material is properly and thoroughly applied at the right time.

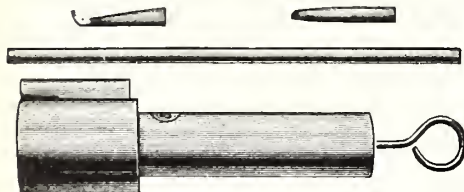
All of these Dusters are sold on a money-back guarantee



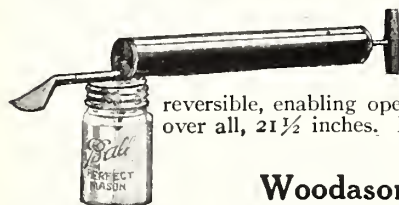
### Calispray Garden Dust No. 82

Contains nicotine, lead arsenate, and copper. With a can of it and a garden duster, the housewife is prepared to wage war on insect pests and fungous diseases in the garden on a moment's notice. No messing in liquids or dirtying of utensils. 4-oz. can 25 cts., 8-oz. can 45 cts., 1-lb. can 60 cts. (not mailable). Larger sizes quoted on request.

### The Silver Beauty Garden Duster



Holds 1 pound of dust. Throws a cloud of dust 8 to 10 feet. Has tube and spreader to reach ground without stooping. An ideal home-garden Duster. Price \$2.50, postpaid \$2.65.

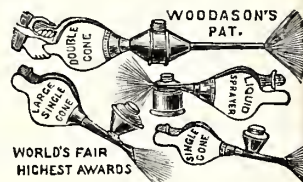


Easy to operate. Fill reservoir with dry powder, such as Paris green, hellebore, powdered arsenate of lead, etc. Size of spray regulated by operation of plunger. Elbow reversible, enabling operator to spray up or down. Pump cylinder  $1\frac{3}{4}$  inches diameter, 14 inches long. Length over all,  $21\frac{1}{2}$  inches. Reservoir, one pint Mason fruit-jar. 85 cts., postpaid 95 cts.

### Woodason's Powder and Liquid Spraying Apparatus

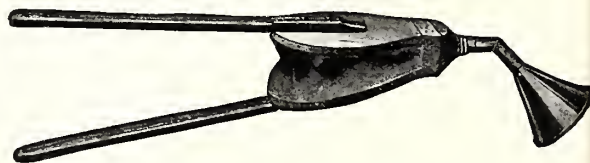
For the destruction of insects, rust, smut, mildew, blight, rot, etc., in houses, gardens, orchards or fields.

Single-cone Insect Powder Bellows. Will last a lifetime; never fails completely to destroy bed-bugs, roaches, moths, mosquitos, flies, fleas on dogs, lice on birds, animals, plants, etc. Being strong, it blows the powder well behind the woodwork and into the cracks where the insects breed in houses, hotels, camps, henneries, greenhouses, hospitals, schools, jails, police stations, asylums, poorhouses, etc. Single-cone Powder Bellows, small size, \$3; large size, \$4.75. Liquid-spraying Bellows, small size, \$4; large size, \$4.75; postage 25 cts.



### Acme Single Powder Gun

Consists of a tight, valveless bellows equipped with a distributing tube, or nozzle, a funnel, a spreader for diffusing the spray, and an elbow for placing the spray on the under side of the leaves. Handles of convenient length; bellows of fine russet leather. A practical, efficient method of applying the principles of dry spraying by hand, at a reasonable price. \$1.50, postpaid \$1.75.



### The Bug Death Sifter

This Sifter is for applying any quantity or variety of dry insecticide on potatoes, melons, cucumbers, cabbages, cauliflower, etc., such as land plaster, or lime mixed with Paris green or arsenate of lead, or any of the numerous manufactured varieties. It is conceded, by all who have knowledge of the Sifter, to be the fastest, easiest, cheapest, and only implement made that will cover large vines, using any of the dry mixtures, *as fast as a man can walk*. 75 cts., postpaid 90 cts.



### Dickey Duster

For use in applying dry insecticides to small flower- or vegetable-gardens. 50 cts., postpaid 60 cts.



The increased demand for Dusters or Dry Sprayers during the past few years is sufficient evidence that the merits of the Dry Method of spraying are approved by the growers as a most efficient method.

# Wash Easily and Quickly with the **A B C** ALCO

This tried and true dolly type of Washer was the first product of A B C, the forerunner of the present extensive and complete line of A B C Electric and Power Washing Machines. The A B C wood tub dolly type Washers embrace many exclusive features as a result of our nineteen years of manufacturing experience. Skilled workmen build these famous Washers on the progressive assembly plan, permitting the use of highest grade materials at the lowest possible cost to you. A B C Products offer greater values.



## Alco Single Tub Models

For fast quality washing at low cost, either the Electric or Power Washers have no equal. Tubs are made from selected cypress, the "wood eternal," known for its water-resisting qualities; finished natural wood; hoops gold bronze painted.

Wringers are of most sturdy wood frame with 11-inch rolls, instant and positive safety release supported by the famous A B C sixty thousand dollar Wringer-head.

|                             |         |
|-----------------------------|---------|
| Power Model No. 51 .....    | \$65 00 |
| Electric Model No. 53 ..... | 95 00   |

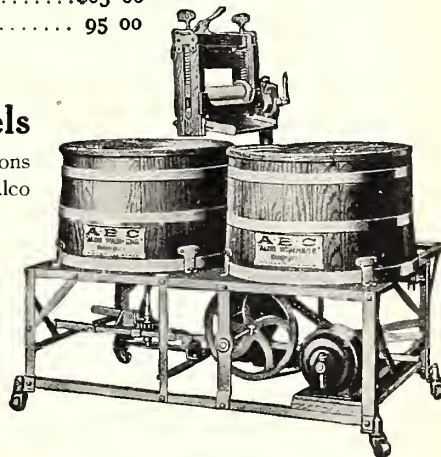
## Alco Double Tub Models

For large families, small hotels, institutions or restaurants, the Double Tub A B C Alco

cuts washing-time in half.

Double tub machines are like the single-tub models in construction, using cypress stave tubs, 11-inch rolls in Wringer, the famous A B C Wringer-head, and supported by heavy angle steel frame riveted and bolted for strength.

|                             |         |
|-----------------------------|---------|
| Power Model No. 52 .....    | \$90 00 |
| Electric Model No. 54 ..... | 120 00  |



## No. 5 One-Minute Washer

The One-Minute Model No. 5 represents a very efficient and simple hand-washer at a moderate price.

1. Washer Tub. Built from carefully selected kiln-dried Louisiana red cypress—the "wood eternal"—which has proven best adapted to Washing Machine construction. Legs are solid with tub and strongly braced, making tub strong and durable.

2. Compound Lever. A Lever on a Lever that trebles the power and is the secret of the Easy Running One-Minute Washer. This great leverage is compounded and so distributed when connected with the ball-bearing fly-wheel mounted close under the tub that with very little effort the fly-wheel gains sufficient momentum to carry the load. This wonderful Compound Lever is used only on the One-Minute Washer. It is a real labor-saving invention.

3. Driving Mechanism. All under tub out of the way—protects you from accidents—protects your clothes from dirt. Heavy die cast gear, securely attached to upright post, operates lightning speed fly-wheel under tub bottom. Strong and durable; will give years of service.

4. Washing Principle. Strictly modern solid-peg dolly is used; washes rapidly and without injury to the finest fabrics.

Price \$17.50



Searight  
Extension

### Searight Extension Tree-Trimmer

Has a compound lever head and is made with a hook and side lever. It is calculated for heavy work and will cut a limb up to 1 1/4 inches in diameter. Instead of running the rod connecting the knife lever along one side the pole to a handle lever, we have placed the handle lever on the opposite side, which allows the rod to cross the pole. As a result one-half the strain is thrown on one side of the pole and one-half on the other, which gives about double strength, and instead of the pole warping and bending, it has a tendency to remain straight and stiff.

|   |        |          |  |        |          |
|---|--------|----------|--|--------|----------|
| With 8-foot solid pole.....             | \$5 00 | Postpaid | With 12-foot solid pole.....               | \$5 50 | Postpaid |
| With 8-foot jointed pole, 2 sections... | 6 00   | \$6 20   | With 12-foot jointed pole, 3 sections..... | 6 75   | \$7 00   |
| With 10-foot solid pole.....            | 5 25   |          | With 16-foot jointed pole, 4 sections..... | 7 50   | 7 75     |

### West's Lightning Tree Trimmer

The handle for operating the shear slides on the pole and leverage is obtained by a rope working through two iron pulleys, one single sheave pulley which is fastened to the pole and one double sheave pulley which is movable. The rope is fastened to the handle by an iron band, and bolt and nut and is easily adjusted. The spring is 4 inches long, giving quick and positive action. The rod is 3/8 inch hard Bessemer steel, galvanized. This shear is much lighter in weight than the ordinary tree trimmer, has a much greater leverage, and is quicker in operation, for both hands can be used in guiding the shear, and when in place, the handle can be operated without changing position of the hands. Cutting capacity 1 inch.

|             |        |              |        |
|-------------|--------|--------------|--------|
| 6-foot..... | \$2 25 | 10-foot..... | \$2 75 |
| 8-foot..... | 2 50   | 12-foot..... | 3 00   |
|             |        | 14-foot..... | 3 25   |

West's  
Lightning  
Tree  
Trimmer

### Tiffany's Improved All Steel Double-Cut Pruner

Cuts all around the limb and does not bruise the bark.

Made on honor from start to finish. This entire tool is forged from bars of fine crucible steel carefully tempered in oil and fitted with short hard-wood hand-grips which cannot come off, split, or pinch the fingers.

The jaws of this Pruner open very quickly without spreading the handles too far apart, slip onto limbs easily and work into narrow places. They are so designed that large limbs are held close to the joint, which gives great leverage, and as the blade works on the draw-cut principle, we have a very smooth and easy cutting Pruner.

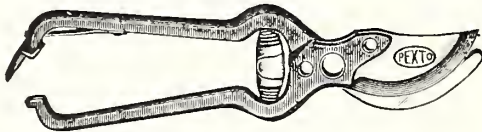
### Grafting Tool

Tiffany forged steel oil-tempered Grafting Tool. Light, strong, handy, and efficient. \$1.50 each; ppd.

**GRAFTING WAX.** For grafting or for cuts and bruises on trees. 1/2-lb. pkg. 35 cts., postpaid 45 cts.; lb. pkg. 55 cts., postpaid 65 cts.

Grafting Tool

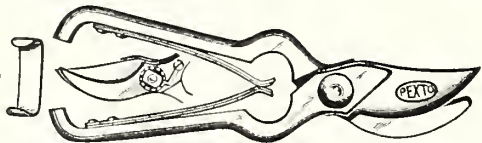
## PEXTO PRUNING SHEARS

Nos. 50  
and 55

California Pattern. Tool steel blade, riveted to head; volute spring; malleable iron head and handles.

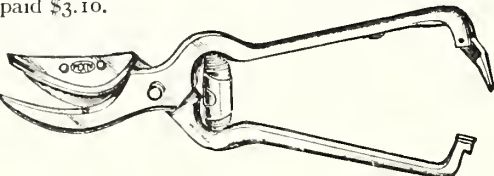
|                                    |        |          |        |
|------------------------------------|--------|----------|--------|
| No. 50. 9-inch, black finish.....  | \$1 00 | Postpaid | \$1 10 |
| No. 55. 9-inch, full polished..... | 1 50   |          | 1 60   |

No. R85

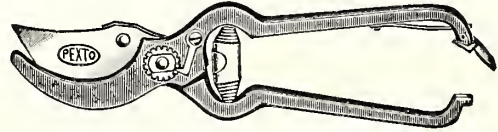


Swiss Pattern. Full polished, crucible steel blade, riveted on, ground convex; regulating ratchet nut; double flat brass springs; removable handle-clip. Furnished with an extra blade. 8 1/2-inch \$3, postpaid \$3.10.

No. 14

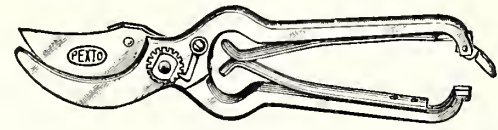


**Ladies' Rose Shear.** Suitable for light pruning and rose culture. There is a clamping shield on the blade which holds the stem as the rose is cut. Full polished and nickel plated. 6-inch \$1.50; postpaid \$1.60.

Nos. R70  
and  
R170

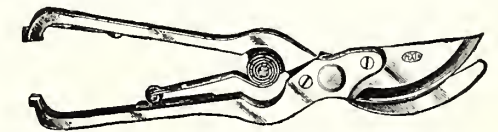
Western Pattern, regulating ratchet nut, Tool steel blade, fastened to handle with screws; volute spring.

|  |        |          |        |
|--|--------|----------|--------|
| No. R 70. 9-inch, polished head, black finished handles..... | \$1 50 | Postpaid | \$1 60 |
| No. R170. 9-inch, full polished and nickel-plated...         | 2 25   |          | 2 35   |

Nos. R60  
and R65

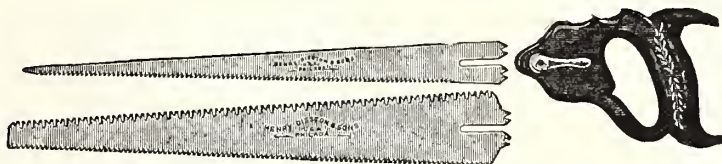
\*California Pattern, with regulating ratchet nut; polished tool steel blade of extra quality, tempered; double flat brass springs.

|                                     |        |          |        |
|-------------------------------------|--------|----------|--------|
| No. R60. 9-inch, black finish.....  | \$1 25 | Postpaid | \$1 35 |
| No. R65. 9-inch, full polished..... | 1 75   |          | 1 85   |



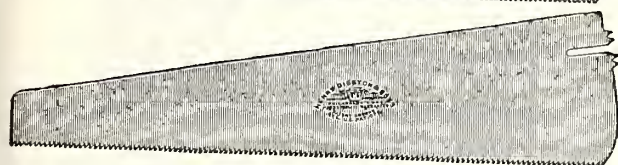
No. R95

Drop forged from high-grade tool steel, full polished. Blades are made from high carbon crucible steel. Combination coil spring and grooved wheel type, the wheel operating on a raised track, which makes easy action. 10-inch \$3.50, postpaid \$3.60.



### Disston's Handy Kit No. 107

This Kit consists of one 20-inch cross-cut blade, one 14-inch compass blade, one 16-inch pruning blade and handle, all contained in a neat canvas case. \$5, postpaid \$5.25.



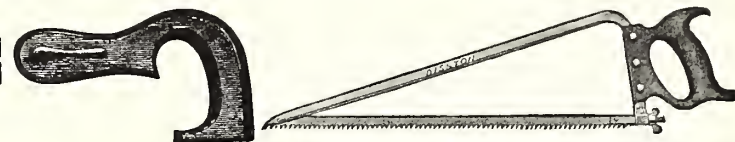
No. 107 Kit

### Disston's No. 3 Nest of Saws

This is a nest or combination of Saws for general use. The handle is of beech, and is equipped with a special lever tightener, which is adjustable to different thicknesses of blades. Nest consists of one 10-inch Keyhole Saw Blade, one 14-inch Compass Saw Blade, one 16-inch Pruning Saw Blade. \$2; postpaid \$2.15.

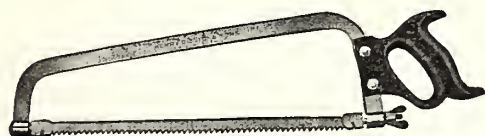


No. 3 Nest (Keyhole Blade not shown)



### No. 17 Disston's Triangular Pruning Saw

Steel blade 20 inches from center to center of holes,  $\frac{1}{2}$  inch wide. Steel frame, oval back, straight, tapered point and polished. Beech handle with extra-large grip for use with gloved hand. \$2; postpaid \$2.15.



### No. 15 Disston's Pruning Saw

Steel blade, 14 inches from center to center of hole, 1 inch wide, 8 points to the inch; adjustable; cuts on both draw and push stroke; swivel at both ends; wing-nut tightener. Large comfortable grip, beechwood handle fastened to frame with 2 nickel-plated iron screws. \$2; postpaid \$2.15.



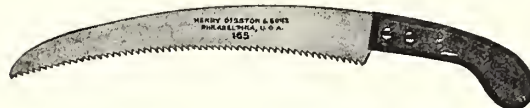
### No. 40 Disston's Duplex Pruning Saw

Steel blade with double straight-edge; top edge, 8 point cross-cut teeth and lower edge "lumberman" teeth. Blade secured to beech handle with three brass screws. 16-inch \$1.10, 18-inch \$1.20, 20-inch \$1.30, postage 15 cts. extra.



### No. 22 Disston's York State Pruner

Steel blade 20 inches long, 5 inches wide at butt, 1 inch at point; 7 points to the inch. Handle securely attached to blade with three brass screws. \$1.50; postpaid \$1.65.



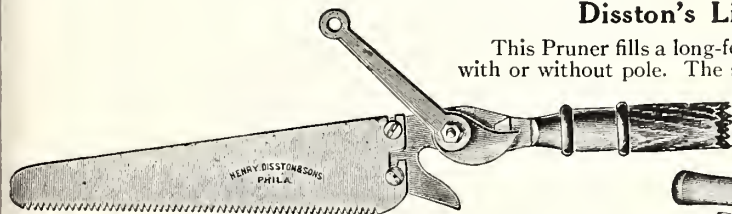
### Disston's No. 165 Pruning Saw

A good, strong, practical tool with 14-inch crescent-shaped steel blade; teeth on concave edge to cut on draw stroke; 8 points to the inch. \$1; postpaid \$1.10.

No. 50. California Pattern. Similar to No. 165, except slightly more curved. \$1.10; postpaid \$1.20.

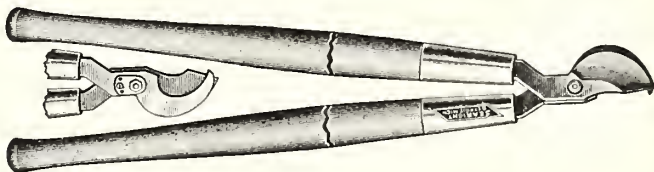
### Disston's Little Giant Pruning Hook and Saw

This Pruner fills a long-felt need, as it combines two useful tools in one. Can be used with or without pole. The saw is detached when its use is not required on large limbs. Length of saw 12 inches. Hook will cut any branch  $\frac{3}{4}$ -inch diameter. Hook and Saw (without pole), \$3; postpaid \$3.15.



### No. 777. Searight Two-Hand Pruner

Drop forged with 26-inch handle



The 777 is designed on scientific principles and is the result of several months' study and experimental work.

The blade positively will not cut or dig into the hook nor push the branch from between it and the hook.

This is a tool of class, with more desirable features and easier cutting qualities than have ever before been combined in a single tool. Has 26-inch handle.

Price \$3.50; postpaid \$3.75

### Metropolitan Hotbed Sash



Metropolitan Hotbed Sash are made from the very best grade of air-dried Gulf cypress, smoothly milled. All parts are mortised and tenoned on the very latest and specially built machines to insure accurate, smooth, and tight-fitting joints, which is very essential in Hotbed Sash. All the bars are beveled at the bottom, to admit the maximum amount of light. They are carefully assembled and clamped perfectly square and nailed with cement coated nails and steel barbed dowel pins.

All sash are made  $\frac{1}{2}$  inch wider than finished size, and then run through a specially built machine which finishes the sash the same width and planes the sides perfectly straight to prevent any open space between sash when laid on the frame. After the above work is performed, each sash is carefully examined for any possible defects in material or workmanship and all sash passed O. K. are run twice through a three-drum sandpapering machine to make them perfectly smooth and all the same thickness.

#### PRICES

Four rows, single-layer putty Sash; either for 6 x 8 or 8 x 10 glass. Sash are 3 feet 2 inches wide by 7 feet long,  $1\frac{3}{4}$  inches thick, made of best cypress, with round iron crossbar in center, and with horns.

|  |      |        |
|--|------|--------|
| Unpainted, without glass, 1 to 5 sash.....   | Each | \$4 20 |
| Unpainted, without glass, 5 to 10 sash.....  |      | 4 05   |
| Unpainted, without glass, 10 to 20 sash..... |      | 3 90   |

For 4 x 6 foot, add 30 cts. per sash to above prices.

Special prices on larger quantities.

We can furnish any other kind or size sash required.

### Glass for Hotbed Sash

|                                 |         |
|---------------------------------|---------|
| B, Single Strength.             | Per box |
| 6 x 8, 150 lights.....          | \$4 00  |
| 8 x 10, 90 lights.....          | 4 00    |
| 10 x 12, 60 lights.....         | 4 00    |
| 8 x 10, A, Single Strength..... | 4 65    |

10 boxes and upward, 25 cts. per box less than above prices.



### Hotbed Thermometer

No. 5981. With brass point. \$2.75, postpaid \$2.85.

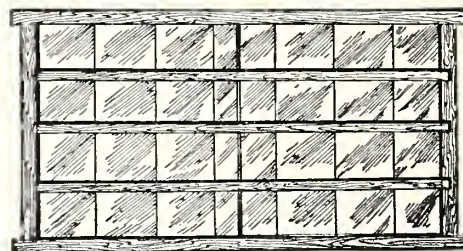
### Neponset Flower Pots



Neponset flower pots are universally used by home growers of flowers and vegetables, by truck-gardeners, by florists, by every grower of plants on a small or large scale. They are light, durable, and inexpensive. When used for transplanting they can be handled quickly and the construction permits removing easily if desired. They are ideal for rooting or shipping vegetable and flowering plants of any description. They are made from a tough, lasting, and waterproof paper and will not break in shipment or handling.

|               | 25     | Postpaid | 100    | Postpaid | 1,000  |
|---------------|--------|----------|--------|----------|--------|
| 2 1/4-in..... | \$0 30 | \$0 40   | \$0 75 | \$0 90   | \$5 50 |
| 3-in.....     | 40     | 50       | 1 00   | 1 15     | 8 00   |
| 4-in.....     | 60     | 70       | 1 75   | 1 95     | 12 50  |

### Eureka Hotbed Sash



Eureka Sash are manufactured from Gulf cypress, every piece of which is guaranteed to be free of sap or defects of any kind.

They are made perfect and so accurately fitted that they will hold together in good shape for many years under ordinary usage.

All Sash are rabbeted for lapped glass and are of standard size, 3 feet 4 inches by 6 feet for four rows of glass 8 inches wide. Each sash will hold 28 panes of 8 by 10-inch glass. The stiles, or outside bars, are  $1\frac{3}{8}$  inches thick and about  $2\frac{1}{2}$  inches wide. The three rabbeted bars are  $1\frac{3}{8}$  inches thick. An oak crossbar runs through the rabbeted bars and half-way into the stiles. Furnished knocked down, unpainted and without glass. Price, \$3.25 each; per bundle of five, \$15. See left-hand column of this page for prices of glass.

### Mastica

Mastica is elastic and tenacious. In a few hours after use, a skin or film is formed, preventing the evaporation of the oils and leaving it pliable for years. On account of this quality, it admits of the expansion and contraction which is continual in the wood-work of a greenhouse from moisture and heat. One gallon will cover about 290 running feet, one side.

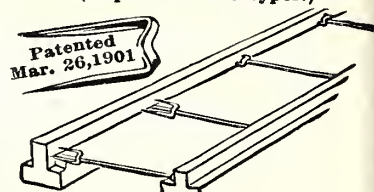
|                                  |               |
|----------------------------------|---------------|
|                                  | Postpaid      |
| Qt. can (weight 5 pounds).....   | \$0 75 \$0 85 |
| Gal. can (weight 15 pounds)..... | 2 50 2 80     |

**MASTICA GLAZING MACHINE.** For applying Mastica. \$2.75; postpaid \$3.

### Peerless Glazing Points

Used by all practical florists and market-gardeners for glazing hotbed sash. No. 1. For small single-thick glass. No. 2. For large, single-thick glass. Both sizes, 75 cts. per 1,000; postpaid 85 cts.

### "PEERLESS" GLAZING POINT. (Improved Van Reyper.)



### Milo Waterproof Hotbed Mats



Made from heavy-weight bur-lap, absorbent pulp, and felt cemented together with a specially prepared water-proof compound. This combination forms a covering both airtight and waterproof.

Absolutely impervious to rain, sleet, and snow; proof against frost; repellent to rats

and mice; easy to handle; wear for years; also make ideal truck covers for marketing vegetables.

#### PRICES

|   | Each   | Doz.    |
|---|--------|---------|
| 40 x 78 in.....   | \$2 50 | \$25 00 |
| 78 x 80 in.....   | 5 00   | 50 00   |
| 40-in. width, in continuous length up to 30 feet, 32 cts. per ft. |        |         |
| 78-in. width, in continuous length up to 30 feet, 63 cts. per ft. |        |         |

# Germāco Hotkaps

## You Make More Profit Using This Amazing New Method of Plant Protection

1—Place  
Hotkap  
in "Setter"

2—Place Setter  
over Seed  
or Plant

3—Press  
Setter  
1/4 inch  
in ground

4—Place small  
amount of  
dirt around  
edge of  
Setter

5—Remove  
Setter from  
Hotkap.  
One man  
can place  
3000 kaps  
per day!

Growers who prepare land and plant seed early in the spring run the dangerous risk of late frosts. Frequently it is too late, then, to plant another crop. Time and effort are wasted; money is lost.

Hotkaps insure against this condition. They not only protect against frost, but shield young plants from wind and insects and eliminate the possibility of the plant being damaged in a heavy rain. They guard against *too much* moisture, which frequently causes a delayed and weakened growth.

Hotkaps protect the ground under the plant so that it will not "crust." When shielded by Hotkaps, the ground underneath remains cultivated, and is as healthy as the day the seeds were planted.

Besides protecting the plant from the elements, and from insects, Hotkaps are worth their cost alone because they are miniature hothouses and make crops mature earlier. That is the all-important thing to the grower, for it means that he can be first to market and so command a better price for his crop. Thus, Hotkaps far more than pay for themselves. They represent one of the best investments a farmer can make.

Hotkaps are made of a specially prepared waxed paper and are cone-like in shape, measuring about 11 inches in diameter at the base and coming to a point at the top.

|                    |        |        |                      |         |
|--------------------|--------|--------|----------------------|---------|
| 100 Hotkaps.....   | \$2 25 | \$2 35 | 5,000 Hotkaps.....   | \$55 00 |
| 250 Hotkaps.....   | 4 00   | 4 15   | 10,000 Hotkaps ..... | 107 50  |
| 1,000 Hotkaps..... | 11 50  | 11 85  |                      |         |

Garden Setters, made of papier-mache, 50 cts. each.  
Steel Setters, \$2.50 each.

Garden Setter included at price quoted with 100 and 250 Hotkaps.

CIRCULAR AND SAMPLE ON REQUEST



## Grow Bigger, Better, Earlier Crops with Mulch Paper

Do away with the back-breaking labor of weeding and cultivating—get bigger, better, and earlier results. Gator Hide Mulch Paper prevents the growth of weeds, preserves soil-moisture, and increases soil-fertility. Plants, vegetables, and flowers protected and stimulated by Gator Hide Mulch Paper mature weeks earlier and yield sometimes up to four times the crop.

Comes in two types, each in 18 and 36-in. rolls

Type A (light weight) for annuals in field culture.

|                                  |        |
|----------------------------------|--------|
| 18-in. roll (1,350 sq. ft.)..... | \$3 50 |
| 36-in. roll (2,700 sq. ft.)..... | 7 25   |

Type B (heavy weight) for perennials in field culture and all garden work.

|                                  |        |
|----------------------------------|--------|
| 18-in. roll (675 sq. ft.).....   | \$3 50 |
| 36-in. roll (1,350 sq. ft.)..... | 7 25   |

Let us send you a copy of the interesting booklet "The Miracle of Mulch Paper" which tells the complete story and is full of interesting photographs of its use and benefits.

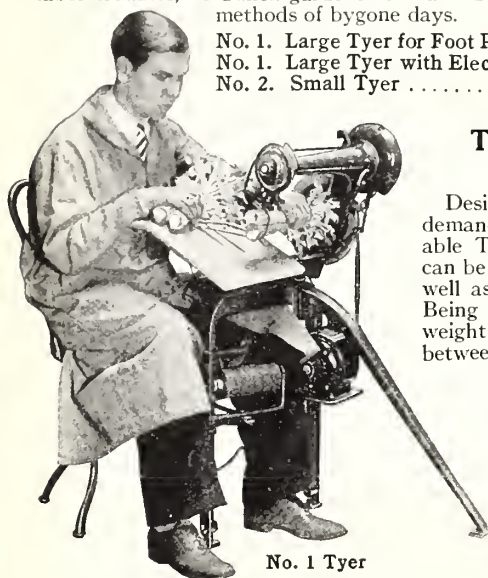
Tomato plants nine weeks old. Planted with same seed. The increased yield for Mulched Tomato Plants is over 44 per cent.



## The Saxmayer Vegetable Tyer

The Saxmayer Vegetable Tyer is no longer an experiment, as is testified by hundreds of satisfied customers, but is an essential part of every successful market gardener's equipment. It will save the labor of from three to six persons per day and will pay for itself in a very few weeks. The machine ties any kind of bunch vegetables except the large dozen-bunches of celery. It uses either cord or, by changing the knotter bill, a No. 13 tape. In these days of high wages, scarcity of labor, cost of twine, and labor troubles, no bunch gardener can afford to stick to the old methods of bygone days.

No. 1. Large Tyer for Foot Power . . . \$125 00  
No. 1. Large Tyer with Electric Motor. 150 00  
No. 2. Small Tyer . . . . . 75 00



No. 1 Tyer

### The Midget Saxmayer

Designed to meet the demand for a small, portable Tying Machine. It can be used in the field as well as in the washroom. Being small and light weight, it can be placed between the rows, permitting the buncher to tie as he pulls. Fully guaranteed. Price, \$45.

Prices on Cotton Twine and Braid will be quoted on request.

## New Felins Tying Machine

*Solves the Bunching Problem for Gardeners, Nurserymen and Florists*

Thousands in Use

Saves Two to Eight Hours a Day

PAYS  
FOR  
ITSELF  
IN A  
FEW  
WEEKS

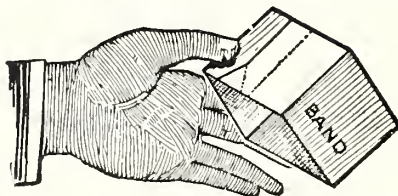


THE  
RIGHT  
WAY  
TO  
INCREASE  
PROFITS

Adjustable to any size bunch from  $\frac{1}{4}$  to 5 inches. Ties tightly a neat, single bow-knot with either 6- or 8-ply cotton twine or No. 13 braid. Price, \$75.

## Miller's No-Fold Dirt Bands

These Bands require no folding; there is no lock used, that will come open in handling; there is no glue used, to open up when you water. The substance used to hold the Band will not come open, but makes it waterproof.

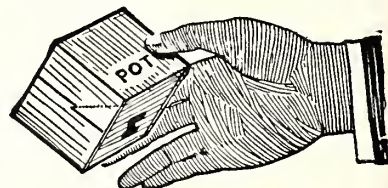


| SIZES AND PRICES    |        |        |        |
|---------------------|--------|--------|--------|
|                     | 250    | 500    | 1,000  |
| 2 x 2 x 2 . . . . . | \$0 50 | \$0 90 | \$1 50 |
| 3 x 3 x 3 . . . . . | 1 00   | 1 65   | 3 00   |
| 4 x 4 x 3 . . . . . | 1 25   | 2 15   | 4 00   |

Postage on 250, 15 cts.; on 500, 20 cts.; on 1,000, 25 cts.

## Miller's Lock-Process Dirt Pots

Miller's Pots are made of high-grade water-finished board. Briefly, our Pots when locked stay locked; there is no occasion for the sides or bottoms of our Pots to become loose, and they contain no glue to loosen up or become sour.



Patent Pending. Note the solid bottom

| SIZES AND PRICES        |        |        |        |
|-------------------------|--------|--------|--------|
|                         | 250    | 500    | 1,000  |
| 2 x 2 x 2 . . . . .     | \$0 85 | \$1 40 | \$2 50 |
| 3 x 3 x 3 . . . . .     | 1 15   | 2 00   | 3 75   |
| 4 x 4 x 3 1/2 . . . . . | 1 50   | 2 65   | 5 00   |

Postage on 250, 30 cts.; on 500, 45 cts.; on 1,000, 75 cts.

## McKim Patent All-Steel Measures

Made in five sizes, and we guarantee them U. S. Government Standard Capacity, or they may be returned at our expense. The sides and bottoms are made of heavy gauge steel sheets, and they are admittedly the most substantial steel measures on the market. The bottoms of the half-bushel and peck sizes are corrugated, and all bottoms are made of No. 22 gauge steel sheets. Every farmer and gardener should have a full set of these measures. Per set (5 measures) \$2; postpaid \$2.25.



### "STYLE B," LOW SHAPE

| Capacity | Diam.     | Depth     | Each   | Postpaid | Capacity | Diam.  | Depth     | Each   | Postpaid |
|----------|-----------|-----------|--------|----------|----------|--------|-----------|--------|----------|
| 1 qt.    | 5 1/8 in. | 3 in.     | \$0 25 | \$0 30   | 8 qts.   | 11 in. | 5 3/8 in. | \$0 50 | \$0 65   |
| 2 qts.   | 6 3/8 in. | 3 3/8 in. | 30     | 35       | 16 qts.  | 14 in. | 7 in.     | 75     | 90       |
| 4 qts.   | 8 1/2 in. | 4 3/4 in. | 35     | 45       |          |        |           |        |          |

## Troemner's Standard Dry Tin Measures

|                    | Each   | Postpaid |                    | Each   | Postpaid |
|--------------------|--------|----------|--------------------|--------|----------|
| 1/2 pint . . . . . | \$0 50 | \$0 60   | Quart . . . . .    | \$0 95 | \$1 05   |
| Pint . . . . .     | 60     | 70       | 2 quarts . . . . . | 1 50   | 1 60     |

Henry Troemner's Measures have been the accepted standard of excellence for over three-quarters of a century.

## Tilley's Ladders

They are the most convenient orchard ladders ever produced for trimming trees and picking fruit. Made very light and strong. The best that can be produced.

### Single Ladders

#### OPEN TOP

|              |        |
|--------------|--------|
| 10-foot..... | \$3 25 |
| 12-foot..... | 3 75   |
| 14-foot..... | 4 25   |
| 16-foot..... | 4 75   |
| 18-foot..... | 5 75   |
| 20-foot..... | 6 75   |
| 22-foot..... | 8 25   |
| 24-foot..... | 9 00   |
| 26-foot..... | 11 00  |
| 28-foot..... | 15 00  |

#### POINTED TOP

|              |       |
|--------------|-------|
| 13-foot..... | 4 00  |
| 15-foot..... | 4 75  |
| 17-foot..... | 5 50  |
| 19-foot..... | 6 25  |
| 21-foot..... | 7 00  |
| 25-foot..... | 9 50  |
| 27-foot..... | 13 00 |

Point included in above measurement.

### Extension Ladders

#### OPEN TOP

|                                  |        |
|----------------------------------|--------|
| 24-foot, extends to 21 feet..... | \$9 50 |
| 26-foot, extends to 23 feet..... | 10 25  |
| 28-foot, extends to 25 feet..... | 11 00  |
| 30-foot, extends to 27 feet..... | 11 75  |

### EXTENSION LADDERS, continued

|                                  |         |
|----------------------------------|---------|
| 32-foot, extends to 29 feet..... | \$12 75 |
| 34-foot, extends to 31 feet..... | 13 50   |

#### POINTED TOP

|                                  |       |
|----------------------------------|-------|
| 23-foot, extends to 20 feet..... | 9 50  |
| 25-foot, extends to 22 feet..... | 10 25 |
| 27-foot, extends to 24 feet..... | 11 00 |
| 29-foot, extends to 26 feet..... | 12 00 |
| 31-foot, extends to 28 feet..... | 13 00 |
| 33-foot, extends to 30 feet..... | 14 00 |
| 35-foot, extends to 32 feet..... | 15 00 |

## Omega Tripod Step-Ladder

Particularly adapted for fruit-picking and for use on uneven ground. Light, strong, rigid, broad-based. Easy to stand on; easy to move; folds up snug.

|              |        |
|--------------|--------|
| 6-step.....  | \$3 60 |
| 8-step.....  | 4 80   |
| 10-step..... | 6 00   |
| 12-step..... | 7 20   |

A first-class, well-made article. All flat steps. The two lower are supported by and rest on rounds which tie, support and thoroughly brace the main ladder.

Tilley Ladders are neither painted nor stained and the purchasers can see just what they are buying.

## FRUIT PACKAGES

We make a specialty of Fruit Packages, all kinds and sizes to suit the gardening and fruit-growing trade in western Pennsylvania, among which are the following:

Berry Baskets, Diamond Market Baskets, Grape Baskets, Stave Baskets, and Hand-made Baskets. When you are in the market for Baskets, please ask us for prices.

## Owosso Folding Fruit and Vegetable Crate

### Holds One Bushel U. S. Dry Measure

It is strong, durable, and unusually convenient to handle. All slats are made from Michigan hardwood beech, smoothly finished with rounded corners so as not to injure the contents.

These Crates are used extensively for handling apples, potatoes, onions, and tomatoes from the fields to the canning factories and warehouses; also for storage purposes. They stack up as high as desired and provide the right amount of ventilation. When empty will nest three together or can be folded flat.

Size of crate, 15½ inches wide, 17¾ inches long, 11½ inches deep. Size of slats, ¾ inch by 1 inch. Average weight, about 8 pounds each. 60 cts. each; postpaid 75 cts.; \$5 for 10, \$23.50 for 50, \$45 per 100. We will deliver these Crates at your railroad station in lots of 50 or 100 at the above prices, direct from factory.

## Pennsylvania Fruit-Picker

Price 60 cts., postpaid 70 cts.

More Pennsylvania Fruit-Pickers are used than all other makes combined because they are reliable and sell at a reasonable price. As a Fruit-Picker it has no superior. Made of heavy galvanized wire, and easily adjusted to a pole. It will gather apples, peaches, pears, and all similar fruits.

### FRUIT-CROP INSURANCE

Honey-bees put the pollen where it stays put. They insure cross-pollination. Every fruit-grower should "do his bit" and keep a few colonies of bees. It pays. See pages 162 and 163.

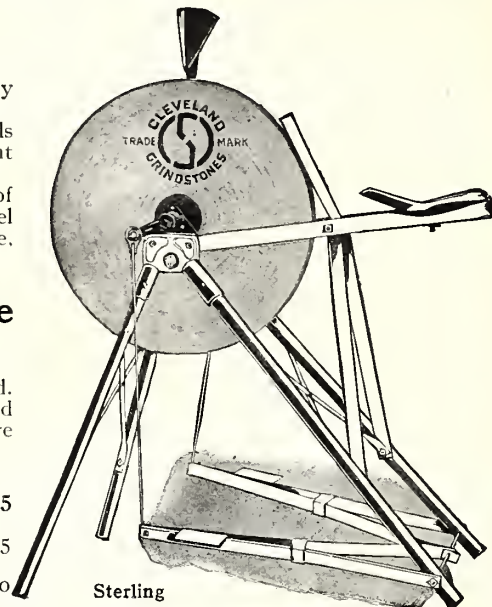
## The Sterling Grindstone

(BALL-BEARING)

A steel tubular frame, mounted Grindstone. Ball-bearing throughout. Absolutely the best mounted Grindstone on the market.

A double-treadle frame embracing the bicycle features of our bi-treadle. All rods and bolts are threaded; there are no cotter pins and no loose parts. Permanent rigidity is insured. Provided with a large comfortable seat and clothes protector.

Fitted on crank and shaft with improved ball bearings—encased—consisting of a heavy steel ball casing and a cone or sleeve turned out of solid cold-rolled steel shafting, balls cannot work loose or drop out. Weight of stone, 50 to 60 lbs. Price, \$9.



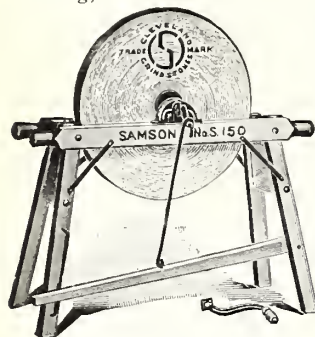
Sterling

## Samson Mounted Grindstone

Specially Selected Stone

The frame is made of the best seasoned hardwood. The legs are securely framed into the sidebars and fastened by a bolt. The ends of the sidebars are neatly turned to serve as handles.

No. 150 Stone, weighs 100 to 110 lbs., usual thickness  $1\frac{3}{4}$  to  $2\frac{1}{4}$  inches ..... \$9 25  
 No. 155 Stone, weighs 70 to 80 lbs., usual thickness  $1\frac{3}{4}$  to  $2\frac{1}{4}$  inches ..... 8 25  
 No. 160 Stone, weighs 40 to 50 lbs., usual thickness  $1\frac{3}{4}$  to  $2\frac{1}{4}$  inches ..... 7 50

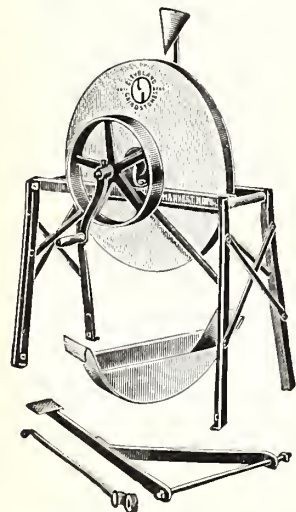


Samson Mounted Grindstone

## Harvest King Power Grindstone

For Farm Use

The Harvest King Roller-bearing Power Grindstone is designed to meet the needs of the farmer who desires a Grindstone to be operated by a gasoline engine. The frame is of heavy-angle steel,  $1\frac{1}{4}$  x  $1\frac{1}{4}$  x  $\frac{1}{2}$  in., strongly braced. Equipped with high-grade, selected Cleveland Grindstone, 24 inches in diameter and 2 inches thick. Pulley 12 in. diameter x  $2\frac{3}{8}$  inches. Heavy steel roller bearings. Weight, complete, about 140 pounds. Price, complete, with hand-crank, pulley, drip-cup, trough, and treadle attachment, \$13.50.



Harvest King Power Grindstone

## Improved Ball-Bearing Family Grindstone

The best family Grindstone made, without exception. Supplied with a fine specially selected Berea Grindstone, turned and rubbed smooth, mounted on a steel shaft and steel ball bearings. Prices no higher than for the ordinary style.

|              |          |        |                    |
|--------------|----------|--------|--------------------|
|              | Postpaid |        | Postpaid           |
| 8-inch.....  | \$3 25   | \$3 50 | 12-inch.....\$4 25 |
| 10-inch..... | 3 75     | 4 00   | \$4 50             |

No kitchen equipment is complete without one of these Grindstones. Will last a lifetime



Family Grindstone

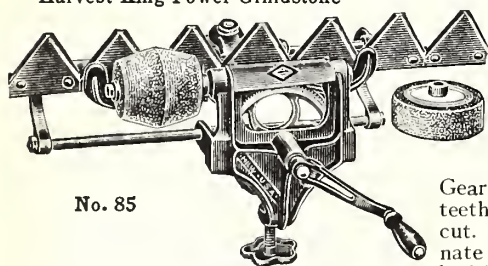
## Luther Farm Grinders

Very quiet and easy running. Strong frame and accurately machined parts. Made for mounting on bench or mower wheel.

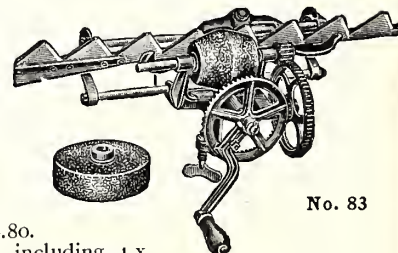
Gear and wheel-shaft teeth helical machine cut. Ball bearings eliminate friction. Sickle-holding attachment

A compact, serviceable hand-power Farm Grinder. Clamps on bench or mower wheel. Gear and pinion machine cut, ratio 20 to 1. Sickle-holding attachment made to sharpen six sections before reclamping bar in holder. No. 82, without Tool Wheel, \$6.50; postpaid \$6.80.

No. 83. Same as No. 82, including 4 x  $1\frac{1}{4}$ -in. medium Dimeo-Grit Tool Wheel, \$7.50; postpaid \$7.80.



No. 85



No. 83

made to sharpen five sections before reclamping bar in holder. Price with 4 x  $1\frac{1}{4}$  in. medium Dimeo-Grit Tool Wheel \$8; postpaid \$8.30



## Dimeo-Grit File

Mighty handy for the farmer and gardener. Cuts quickly and freely, and gives better, cleaner edge than the steel file, in less time, and with less effort. For sharpening mower sections and practically any edged farm and garden tool. 75 cts.; ppd. 85 cts.



## Dimeo-Grit Scythe Stones

A good quality, vitrified, free-cutting Scythe Stone, made with steel reinforcement rod inside, which makes the Stone practically unbreakable. 10 in., medium, 25 cts.; 10 in., heavy, 30 cts.; 10 in., heavy, oval shape without steel center, 20 cts. Postage 10 cts. each extra.

## POST-HOLE DIGGERS

### Standard Earth Augers

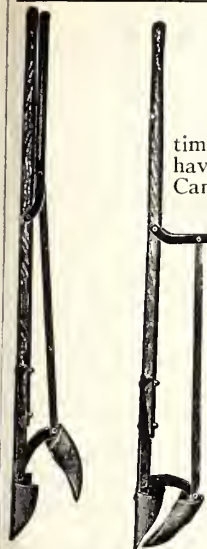
Standard Earth Augers are "standard" because they will do the most work in the shortest time with the least labor, and are made of the highest grade material. It is the only Auger made having movable blades which open to discharge contents. Will dump sticky clay with ease. Can be instantly adjusted to bore many different-sized holes. In fact, it has no equal for any kind of earth-boring. It bores seven different-sized holes—8, 9, 10, 11, 12, 13, and 14 inches in diameter and 3½ feet deep. The stem can be fitted with pipe extension to bore extra-deep holes or wells. \$6 each, postpaid \$6.35.

### Universal

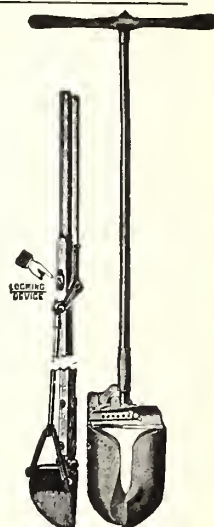
It has cast steel blade of best quality, strong, durable and easily operated. Works in all kinds of soil, clay, sand, gravel, shale, etc. \$2.75 each, postpaid \$3.10.

### Lock Lever

The best implement ever put into the ground for the purpose of digging holes. It is easily operated. A boy can work with it. A trial will convince anyone that it will save its cost in a few days' use. The cast steel blade is fitted with automatic self-lock which locks the blade at right angles so that both hands may be used in lifting the ground out of the hole. Works equally well in any kind of soil from muck to stones. \$2.25 ea., postpaid \$2.55.



Open Universal Closed



Lock-lever Standard

### Tamping Head Steel Digger

All-steel, long and wide cutting blade with large tamping head made of 1-inch round steel; length over all 5 feet, 9 inches. \$2.25 each.

### Wood-Chopper's Wedges

No. 136. Square head; axe finish; weight 3, 4, and 5 lbs. 10 cts. per lb.

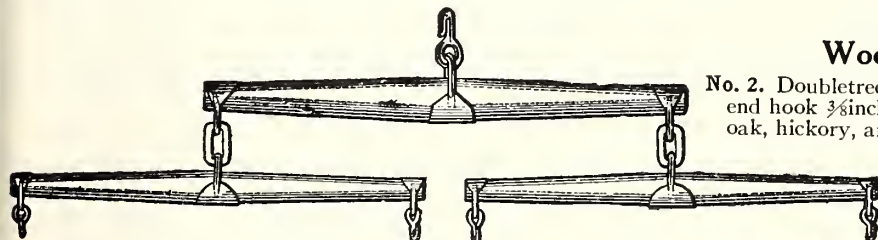
No. 137. Round head; Truckee Pattern; weight 3, 4, and 5 lbs. 10 cts. per lb.



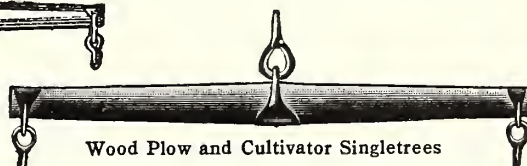
Truckee Pattern

### Wood Plow Doubletrees

No. 2. Doubletree 3 x 36 inches, singletrees 2½ x 30 inches, end hook ¾ inch. The above set made from second-growth oak, hickory, and ash, painted red. Complete \$4.50.



Wood Plow Doubletrees

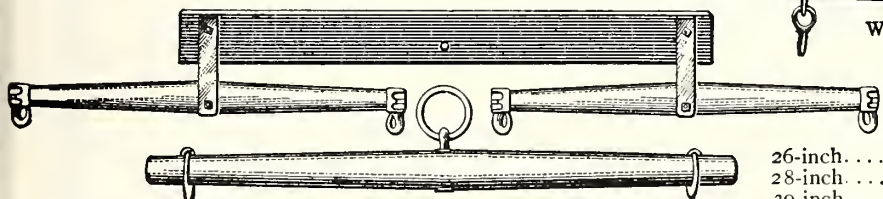


Wood Plow and Cultivator Singletrees

### Wood Plow and Cultivator Singletree

WITH RING IN CENTER

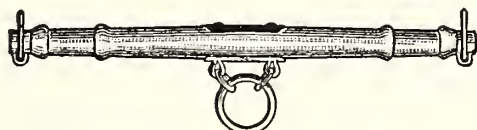
|              |        |
|--------------|--------|
| 26-inch..... | \$0 95 |
| 28-inch..... | 1 05   |
| 30-inch..... | 1 15   |



Agricultural Doubletrees and Yoke

### Agricultural Doubletrees and Yoke

No. 401. Complete hitch for land-rollers, hay rakes, tedders, mowing machines or any implement where flat doubletree is used. Painted red. Complete, including doubletree, singletrees and yoke, \$3.



Team Neck Yokes Ironed

### Team Neck Yokes Ironed

Made from second-growth oak, hickory, or ash; center ring 3½-inch diameter. No. 311A. 2¾-in. x 42 inches long, \$2; No. 311C. 3-in. x 48 inches long, \$2.75.

### Wood Wagon Doubletrees

Doubletree 1¾ x 4¾ x 50 inches. Singletree 2½ x 34 inches. Painted red, varnished and striped. (Not illustrated.) Per set \$5.25.

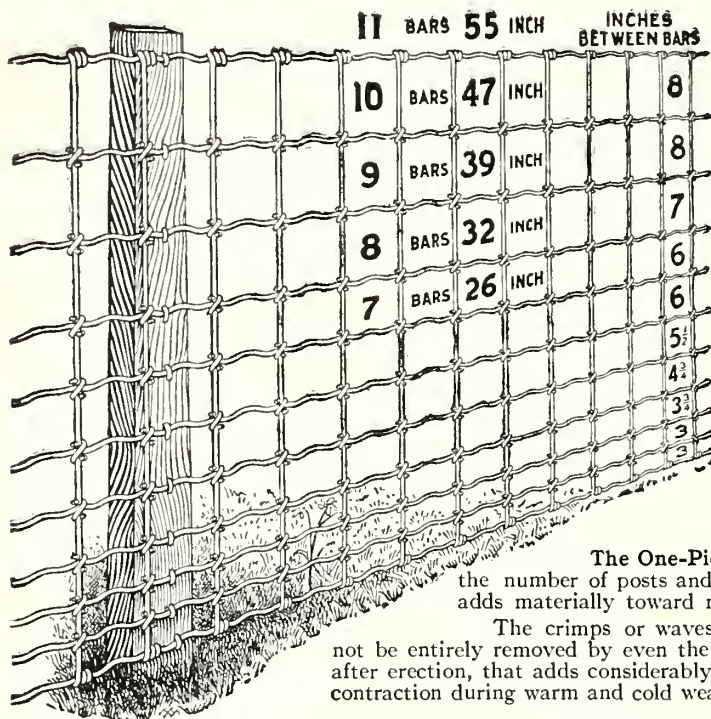


No. 41

### Breast Yokes

MADE FROM HICKORY

No. 41. 2 inches x 22 inches long \$1.25.



## Square Deal Farm Fence

After thirty-five years of fence-building, Keystone Steel & Wire Co. perfected "Galvannealed" Square Deal Fence. It is here at last—the farm fence that scientists say is best of all—the fence that state universities claim outlasts all others; the fence that railroads choose because it is better; the fence that successful farmers everywhere are buying because it lasts two to three times longer and sells at no extra price.

### The Square Deal Lock

Big bulky knots are no better from a construction standpoint, and many times worse, than the trim, compact lock which positively prevents slipping. They merely increase weight and cost of production, without increasing the life of the fence in the least.

The manufacture of this lock requires the least possible amount of material. It absolutely cannot slip.

The crimp within the "Square Deal" lock allows for considerable flexibility without any chance of slipping. This permits Square Deal Fence to fit the hills and hollows easily without bending the stay wires.

The One-Piece Stay Wire seems to be the logical style of stay to reduce the number of posts and thus lessen the cost and labor of setting. The stiff stay adds materially toward making fence-building easy.

The crimps or waves put into the line wires during the weaving process cannot be entirely removed by even the strongest stretchers. They give the fence an elastic tension after erection, that adds considerably to the trim appearance and provides for the expansion and contraction during warm and cold weather.

### PRICES PER ROD

|   |         |
|---|---------|
| No. 11. Top and bottom wire No. 9, intermediate and stay wires    |         |
| No. 11. Put up in 20-rod rolls                                    | Per rod |
| No. 832. 32 in. high, 8 bars, 6-in. stays, weight 9.8 lbs....     | \$0 47  |
| No. 939. 39 in. high, 9 bars, 12-in. stays, weight 8.8 lbs....    | 40      |
| No. 1047. 47 in. high, 10 bars, 12-in. stays, weight 9.9 lbs....  | 44      |
| No. 1155. 55 in. high, 11 bars, 12-in. stays, weight 11.0 lbs.... | 50      |
| In 10-rod rolls 25 cts. per roll extra                            |         |

|   |         |
|---|---------|
| No. 9. All wires including stays No. 9. Put up in 20-rod rolls  | Per rod |
| No. 636. 36 in. high, 6 bars, 12-in. stays, weight 9.4 lbs., spaced 6.6, 7, 8, and 9 inches between bars..... | \$0 39  |
| No. 832. 32 in. high, 8 bars, 6-in. stays, weight 14.9 lbs....  | 67      |
| No. 1047. 47 in. high, 10 bars, 12-in. stays, weight 14.6 lbs....   | 62      |
| No. 1155. 55 in. high, 11 bars, 12-in. stays, weight 16.4 lbs....   | 70      |
| In 10-rod rolls 25 cts. per roll extra  |         |
| Staples. 1 1/4-inch. 7 cts. per lb.   |         |

We have listed above the most popular sizes and styles which we carry in stock at Pittsburgh. We will send on request a complete catalogue of Square Deal Fences, any of which can be shipped direct from factory.

## Ideal Steel Posts

These Posts outlast three ordinary wood posts. No holes to dig—no setting—no tamping. Drive over 300 in a day. Put up all your fencing in short order—and put it up to stay for years. In repairing fences you can do more in one day than in five days setting wood posts.

Built like a railroad rail—the strongest form of fence-post construction known.

With their large split-wing patented anchor plates will root firmly into the ground as driven and hold the fence securely in line. This method of attaching gives greatly increased ground facing and does away entirely with the shearing point that is set up when the anchor plates are applied crossways. By attaching the anchor in this manner we avoid any fulcrum point, and thus secure greater strength.

A continuous series of lugs are rolled along both sides of the face of the post. These lugs are spaced every 3/4-inch and on account of this close spacing, it is possible to securely fasten every line wire of a woven fence if that is desired. Under ordinary conditions it is considered ample if every other wire is stapled to the post.

The lugs on both sides hold the fence wires away from the face of the post, thus preventing accumulation of dirt and moisture.

Ideal Posts are finished with a heavy coat of a special steel paint with unusual high preservative qualities. Their color is willow green and the paint is baked on under a high temperature.

Ideal Steel Posts will give you many years of satisfactory service. Frequent notches on the face of the post make it possible to fasten any or every line wire with special hump clamps which are easily attached. The Clamps come formed to fit snugly around the post. Just place them in position and bend arm back over stem of post. An ordinary pair of pliers or a hammer will do the trick. Seven clamps furnished free with each post. No staples to buy.

|                                   | Each   | Each        |
|-----------------------------------|--------|-------------|
|                                   | 100    | 100 or more |
| 6-ft. (weight 8.6 lbs.).....      | \$0 40 | \$0 36      |
| 6 1/2-ft. (weight 9.3 lbs.).....  | 43     | 39          |
| 7-ft. (weight 9.9 lbs.).....      | 46     | 42          |
| 7 1/2-ft. (weight 10.6 lbs.)..... | 49     | 45          |
| 8-ft. (weight 11.3 lbs.).....     | 52     | 48          |



## American Galvanized Steel Fence Posts

*"The Post Without a Fault"*

The New American Galvanized Post surpasses all others in Strength—Durability—Economy.

The cylindrical shape gives greater resistance at the ground line and makes it easier to drive the post. The Line Posts are 14½ gauge and all parts are hot galvanized inside and out. Posts are galvanized after being formed and punched, all parts being protected by galvanizing. Line Posts, when driven, open automatically, providing self-anchorage.

Twenty years of actual service is convincing proof of the lasting quality of the American Post. Nothing adds more to the appearance of a farm than fence stretched on neat, uniform, and slightly steel posts.

For woven-wire fence, barb wire, and plain wire.

### Galvanized Line Posts

|                               | Each   |
|-------------------------------|--------|
| 6-foot; weight 8.4 lbs.....   | \$0 66 |
| 6½-foot; weight 9.1 lbs.....  | 69     |
| 7-foot; weight 9.8 lbs.....   | 75     |
| 7½-foot; weight 10.5 lbs..... | 81     |
| 8-foot; weight 11.2 lbs.....  | 90     |

See page 128 for painted steel posts

### End and Corner Posts

For Setting in Concrete

|  | Each   |
|--|--------|
| <b>End or Gate Posts.</b> 7-foot; weight 48.3 lbs..... | \$3 75 |
| 7½-foot; weight 51.9 lbs.....                          | 4 00   |
| 8-foot; weight 54.5 lbs.....                           | 4 25   |
| <b>Corner Posts.</b> 7-foot; weight 67.7 lbs.....      | 5 50   |
| 7½-foot; weight 72.7 lbs.....                          | 5 75   |
| 8-foot; weight 75.9 lbs.....                           | 6 00   |

All End Posts are equipped with one brace, Corner Posts with two braces. Shipped complete with all fittings ready to set in concrete. All End and Corner Posts shipped direct from factory.

### Extras

|   | Each   |
|---|--------|
| <b>Ornamental Tops.</b> For Line Posts..... | \$0 20 |
| For End and Corner Posts.....               | 40     |
| <b>Driving Caps.</b> For Line Posts.....    | 40     |

### Royal Blue Wire Stretcher

The Royal Blue Wire Stretcher and Hoist has no equal of its kind in simplicity, etc. It is a first-class roller-bearing Stretcher having large sheaves, each revolving on ten hardened steel bearings. Made entirely of best grade of steel and malleable iron. Reeved with best quality of ¾-inch rope, 16 feet to each Stretcher. Wire grasps are positive and hold the wire firmly. The new swiveling features at top and bottom are a great convenience when using as a hoist or handling "twisty wire." Can be used as a hoist up to 1,000 pounds capacity. \$1.75; postpaid \$1.95.

### American Single Wire Stretcher

Made of malleable iron. Absolutely the best Single Wire Stretcher in the world. It is just what you want for stretching barbed and plain wire. \$1.25, postpaid \$1.40.

### Special Barb Wire

Our Special Barb Wire is made of No. 14 galvanized, strong steel wire, and has a breaking strength of 1,000 pounds. The barbs are short and humane.

|  |             |
|--|-------------|
|  | 80-rod reel |
| <b>Two-Point Cattle.</b> Barbs about 5 inches apart..... | \$2 55      |
| <b>Two-Point Hog.</b> Barbs about 3 inches apart.....    | 2 70        |

### Regular Barb Wire

Made from No. 12 galvanized wire. We can furnish in different styles as follows:

|   |             |
|---|-------------|
|   | 80-rod reel |
| <b>Two-Point Cattle.</b> Barbs about 5 inches apart.....  | \$3 30      |
| <b>Two-Point Hog.</b> Barbs about 3 inches apart.....     | 3 55        |
| <b>Four-Point Cattle.</b> Barbs about 5 inches apart..... | 3 60        |
| <b>Four-Point Hog.</b> Barbs about 3 inches apart.....    | 3 90        |

If preferred we can furnish above in regular reels weighing from 100 to 120 pounds at \$4.15 per 100 pounds.

### Galvanized Plain Wire

|   | 100-lb. coil |
|---|--------------|
| <b>No. 9.</b> 1705 feet in 100-lb. coil. 10-lb. coil 65 cts.....  | \$3 90       |
| <b>No. 10.</b> 2057 feet in 100-lb. coil.....                     | 3 95         |
| <b>No. 11.</b> 2582 feet in 100-lb. coil.....                     | 4 00         |
| <b>No. 12.</b> 3369 feet in 100-lb. coil. 10-lb. coil 65 cts..... | 4 10         |

### Galvanized Coil Spring Wire

**No. 9.** 1705 feet in 100-lb. coil. Price per 100 lbs. \$4.

Special prices will be quoted on any of the above Wire in ton or half-ton lots

### Fence Staples

**Galvanized.** 1 or 1¼-inch. Lb. 7 cts., 100-lb. keg \$4.15.  
**Polished.** 1 or 1¼-inch. Lb. 6 cts., 100-lb. keg \$3.90.

### Wire Nails

|                               | 100-lb. keg |
|-------------------------------|-------------|
| <b>20d Common Nails</b> ..... | \$3 50      |
| <b>10d Common Nails</b> ..... | 3 65        |
| <b>9d Common Nails</b> .....  | 3 70        |
| <b>8d Common Nails</b> .....  | 3 75        |

Prices on other sizes quoted on request. Prices subject to change without notice.

### The Townsend Wire Stretcher



This is made with a wooden lever, or handle 3 feet in length, to which is attached malleable iron pinchers, into which are riveted serrated steel grips; warranted not to slip. It is a substantial and very durable implement. It stretches large-meshed woven wire much better than most of the Stretchers which are made especially for this purpose, and it works equally as well on plain, twisted, and barbed wire. \$1.75, postpaid \$1.90.

### Little Giant Wire Stretcher

The Little Giant Wire Stretcher is the best crank stretcher made. It is constructed entirely of malleable iron. \$1.25, postpaid \$1.40.

*Our aim has always been to furnish High Quality Seeds rather than to sell inferior seeds at low prices. The best is always the cheapest.*

## Square Deal Poultry and Garden Fence

This is the ideal Poultry Fence because it will turn the smallest chick, also keep out the small varmints that ravage the chicken-pens. The first five line wires at the bottom are only 1 inch apart.

**THE NON-SLIP KNOT.** The stiff picket-like stay-wires used in building Square Deal Poultry Fence are attached to the line wires with the famous Square Deal knot—guaranteed to hold under any and all conditions. The best test of this knot is to examine the fence yourself, either in the roll or erected, and you will find that you cannot slip these knots even with a pair of pliers.

Square Deal Fence is made only from the best grade of open hearth steel, smelted in the same mills that make the Fence. The big 5,000-pound ingots are poured, then rolled into blooms, then to billets, then to rods and finally drawn into wire, ready to be woven into the very best Fence that more than thirty years of fence-making experience have shown how to build.

Square Deal Poultry Fence requires no top and bottom boards, and fewer line posts, to keep it erect and trim. Thus it costs, erected, much less than poultry netting. Lasts many times longer than netting because its wires are twice the size of netting wires.

This is a real Fence—stretches up tight and trim, without top or bottom boards and will not bag or sag. Fewer posts are required than for netting and it lasts several times as long.

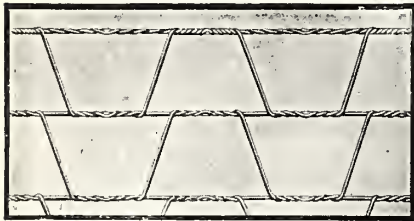
Although not a stock Fence, it turns any ordinary farm stock with ease, in case of emergency, owing to its closely spaced No. 14½ gauge line wires.

The top and bottom wires are No. 11 gauge with No. 14½ gauge filler wires.

### Prices per 165-Foot Roll

|  |        |  |        |
|--|--------|--|--------|
| No. 1636. 36 inches high, 16 bars..... | \$4 65 | No. 2260. 60 inches high, 22 bars..... | \$6 65 |
| No. 1948. 48 inches high, 19 bars..... | 5 65   | No. 2572. 72 inches high, 25 bars..... | 7 65   |

Staples for the above, 10 cts. per pound



## U. S. POULTRY FENCE

### "The Netting That Stands Alone"

The introduction of U. S. Poultry Fence opened an entirely new era in the manufacture and sale of poultry netting. Today, as then, U. S. Poultry Fence truly "stands alone" in its field.

Built on miniature scale of farm fence interwoven with parallel wires and hinge joints so that it stretches to the posts straight, even, and nice, without buckling, bagging, or sagging. It is so stiff and satisfactory that it does not require top rail and baseboard or so many posts as the old-style netting. Is guaranteed five to six times as strong and at erection. It is the strongest, cheapest, most sightly, and best fence for the purpose yet invented.

U. S. Poultry Fence is made in heights from 1 to 6 feet. Galvanized after weaving. Put up in 150-foot rolls. 2-inch mesh made of No. 19 gauge wire; 1-inch mesh, No. 20 gauge wire.

### Prices per 150-Foot Roll

| Height       | 2-in. mesh | 1-in. mesh | Height      | 2-in. mesh | 1-in. mesh |
|--------------|------------|------------|-------------|------------|------------|
| 1 foot.....  | \$1 65     | \$3 15     | 3 feet..... | \$3 95     | \$7 75     |
| 1½ feet..... | 2 25       | 4 50       | 4 feet..... | 5 25       | 10 25      |
| 2 feet.....  | 2 85       | 5 75       | 5 feet..... | 6 50       |            |
| 2½ feet..... | 3 40       | 6 85       | 6 feet..... | 7 75       |            |

Staples 10 cts. per pound

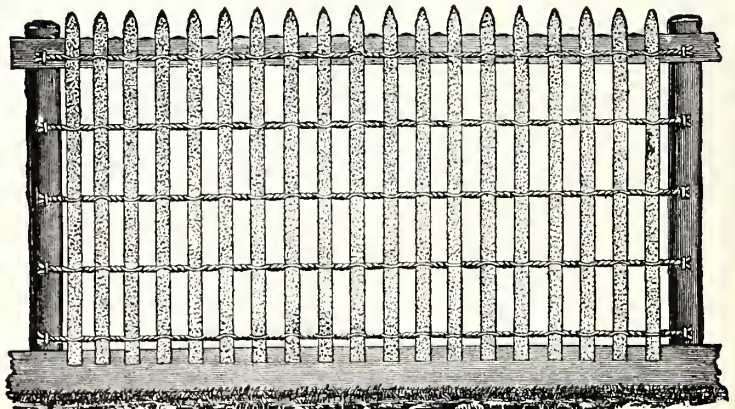
## Combination Picket Fence

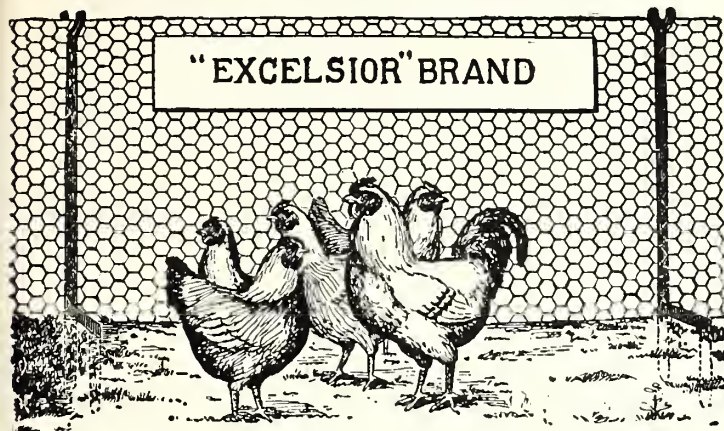
This popular Fence, for gardens, yards, vacant lots, etc., is made of hardwood pickets 1½ inches wide, ½ inch thick, and 4 feet long, woven together, 2 inches apart, with five cables of No. 12 heavy galvanized wire, pointed at top with neat Gothic points. The finish is far superior to that ordinarily used. Instead of using a cheap solution of Venetian Red, which soon washes off, leaving the picket exposed to the weather, we use Red Creo-Oxide. Creo-Oxide serves a double purpose—the pure oxide used stays on the picket, giving it long protection and the pure creosote which is also used in the mixture acts as a preservative to the picket. While the illustration shows the fence with the rail at top and board at bottom, neither of these is necessary.

### PRICES

|                                |         |
|--------------------------------|---------|
| 100-foot Roll, 4 ft. high..... | \$11 50 |
| 50-foot Roll, 4 ft. high.....  | 6 25    |

Cut lengths 14 cts. per ft.





## American Poultry-Yard Gates

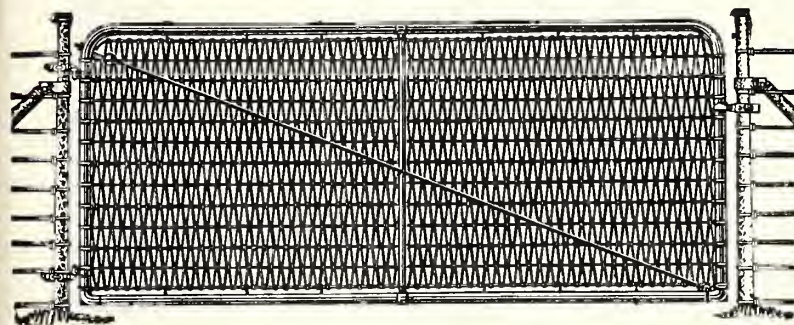
American Steel Gates, always efficient and well designed, have been improved both in structure, finish and operation. The tubular steel frames combine great strength, durability, and beauty. Gates and fittings are thoroughly galvanized.

American frames are covered or filled with a 2-inch mesh fabric of truss form, which not only proves a barrier to the smallest animals while lending bridge-like rigidity and strength, but also makes the gates unclimbable. The combination of the frame and the truss filling produces the highest type of fence gate, answering every requirement of good engineering practice.

### PRICES

|  | Each   |
|--|--------|
| For 3-foot opening, 42 inches high; weight 19 lbs..... | \$3 00 |
| For 3-foot opening, 50 inches high; weight 21 lbs..... | 3 25   |
| For 3-foot opening, 58 inches high; weight 23 lbs..... | 3 50   |

Above prices include fixtures for wood posts. For fixtures for steel posts, add 50c.



Above prices include fixtures for wood posts. F.O.B. factory if not in stock. For fixtures for steel posts, add 75 cts.

## "Can't Sag" Gates

"Can't Sag" Gate 52 inches high made of five 6-inch boards spaced as follows from bottom to top:  $2\frac{3}{4}$ ,  $4\frac{3}{4}$ ,  $7\frac{1}{4}$ , and  $8\frac{1}{4}$  inches apart.

"Can't Sag" Gates are neither all wood nor all steel but a happy combination of the two. They retain all good features of wood Gates and the advantages of steel Gates, but have none of the drawbacks of either. They last longer than any other Gate you can build or buy. They weigh only half as much as ordinary all-wood Gates and are far stronger than any steel, wire, or gas pipe Gate made. They "Can't Sag" even a quarter of an inch. Made of "C" finish, long-leaf pine and painted a rich orange color.

If a board breaks it doesn't let the Gate sag or fall down, you simply slip out the broken board and replace it with a new one and in five minutes you have another perfect "Can't Sag" Gate as good as new and repaired at the cost of one board and a few minutes' spare time. "Can't Sag" Gates are the neatest, trimmest looking Gates ever put up. 12 feet long, 52 inches high, \$9.25; 10 ft. \$8.

## "Can't Sag" Gate Steels

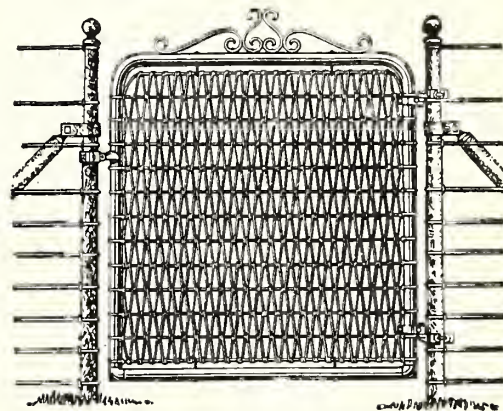
For the farmer who prefers to furnish his own lumber and make his own Gate we furnish all irons necessary to build the Gate as shown above—everything except the boards. This includes 4 pairs of Angle Steel Uprights, Double Truss Braces, Hook Lag Screws Hinges, Bolts, Washers, Lightning Socket Wrench, directions, etc. Price of set complete, \$4.

## Diamond Mesh Poultry Netting

Made from No. 20 gauge wire and galvanized after weaving. Put up in 50- and 150-foot rolls

| Height          | 2-inch mesh |         | 1-inch mesh |         |
|-----------------|-------------|---------|-------------|---------|
|                 | 50 ft.      | 150 ft. | 50 ft.      | 150 ft. |
| 1 foot.....     | \$0 60      | \$1 40  | \$1 35      | \$3 15  |
| 1 1/2 feet..... |             | 2 00    |             | 4 50    |
| 2 feet.....     | 1 00        | 2 50    | 2 20        | 5 75    |
| 2 1/2 feet..... |             | 3 00    |             | 6 85    |
| 3 feet.....     | 1 30        | 3 35    | 3 00        | 7 75    |
| 4 feet.....     | 1 70        | 4 50    | 3 85        | 10 25   |
| 5 feet.....     | 2 10        | 5 60    |             |         |
| 6 feet.....     | 2 55        | 6 75    |             |         |

6 feet, 1 1/2-in. mesh, No. 16 gauge, 150-ft. roll, \$20.  
Staples 10 cts. per lb.



## American Single Drive Gates

With galvanized tubular steel frame, filled with a 2-in. diamond mesh galvanized fabric which is unclimbable

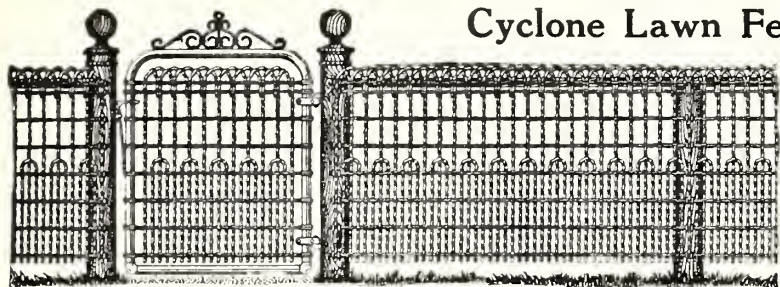
A strong, non-climbable, and economical farm Gate. Universally recognized for its simplicity and durability. In addition to upright tubular brace the frame is supported by a diagonal brace rod which keeps it firm and prevents sagging.

### PRICES

|   | Each   |
|---|--------|
| For 10-ft. opening, 42 in. high; weight 56 lbs. . . | \$7 50 |
| For 10-ft. opening, 50 in. high; weight 61 lbs. . . | 7 75   |
| For 10-ft. opening, 58 in. high; weight 67 lbs. . . | 8 00   |
| For 12-ft. opening, 42 in. high; weight 65 lbs. . . | 8 25   |
| For 12-ft. opening, 50 in. high; weight 71 lbs. . . | 8 50   |
| For 12-ft. opening, 58 in. high; weight 77 lbs. . . | 8 75   |

Above prices include fixtures for wood posts. F.O.B. factory if not in stock. For fixtures for steel posts, add 75 cts.





## Cyclone Lawn Fence

Makes beautiful home surroundings worth while

With Cyclone Fence enclosing your premises, you are assured success in your efforts to cultivate beautiful surroundings for your home. Flowers, lawns, gardens, trees, and shrubs have protection at all times against destructive outsiders.

Cyclone Fence is woven in beautiful, symmetrical designs that are attractive and artistic, yet unobtrusive. From a variety of handsome patterns, in standard heights, fencing may be selected to harmonize with the character of property to be enclosed.

**STYLE "F"** is our most popular ornamental fence for front yards, back yards or division fence. Pickets are of No. 9 heavily galvanized wire spaced 3 inches apart at top,  $1\frac{3}{8}$  inches apart at bottom. Cables are of heavily galvanized wire, spaced 6 inches apart, except the two top cables, which are spaced  $2\frac{3}{8}$  inches apart. Above cut shows Style F.

**STYLE "L-EXTRA"** is a high-grade, moderately priced fence. Specially adapted for back yards and division fencing. Pickets of No. 9 heavily galvanized wire are spaced 3 inches apart. Cables are of heavily galvanized wire spaced 6 inches apart, except the two top cables, which are spaced  $2\frac{3}{8}$  inches apart.

### PRICES PER 165-FOOT ROLL

|   |         |
|---|---------|
| Style "F". 36 in. high; per roll.....       | \$20 00 |
| Style "F". 42 in. high; per roll.....       | 21 50   |
| Style "F". 48 in. high; per roll.....       | 25 00   |
| Style "L-Extra". 36 in. high; per roll..... | 14 25   |
| Style "L-Extra". 42 in. high; per roll..... | 16 00   |
| Style "L-Extra". 48 in. high; per roll..... | 18 00   |

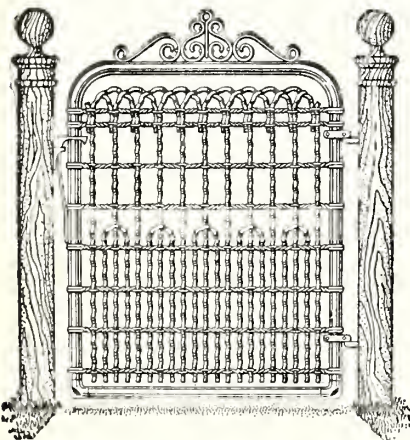
### PRICES IN CUT LENGTHS

Style "F" 42 in. will be furnished in any desired length under 165 feet at 15 cts. per lineal foot. Style "L-Extra" 42 in. at 12 cts. per lineal foot.

Ask for special booklet.

## Cyclone "L-Extra" Trellis

A very durable and artistic support for climbing vines and flowers; harmonizes with home surroundings. Retains its shape perfectly; is easily and quickly placed in position and will last indefinitely. It is made of corrugated No. 11 galvanized wire, spaced 4 inches apart; cables are of No. 13 galvanized wire. Made in three widths: 18, 24, and 30 inches. Put up in 165-foot rolls.



### PRICES

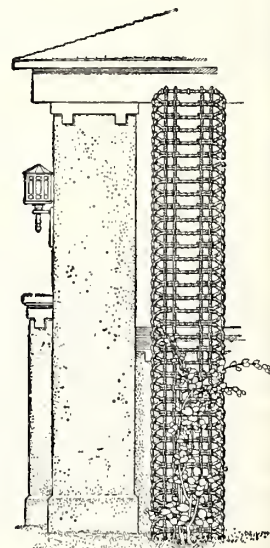
|                                | 165-foot rolls | Cut lengths             |
|--------------------------------|----------------|-------------------------|
| 18-inch.....per roll, \$10 50. |                | Per lineal foot, \$0 08 |
| 24-inch.....per roll, 12 00.   |                | Per lineal foot, 10     |
| 30-inch.....per roll, 13 50.   |                | Per lineal foot, 12     |

## Cyclone Galvanized Walk Gates

A handsome and practical Gate for all home purposes and is especially suited to the front yard or garden; ornamental scroll top adds a pleasing artistic touch to Gate. Made of  $1\frac{1}{8}$ -inch diameter heavy steel tubing and galvanized.

Covered with Style F fabric. Gates are made for 3-foot openings, which means distance between posts, with proper allowance for hinges and latch to fit openings. Prices, 36 in. high, \$3.75; 42 in. high, \$4; 48 in. high, \$4.25.

Prices include fixtures for wood posts. Fixtures for tubular steel posts \$1 extra. If steel post fixtures are wanted, give outside diameter of posts.

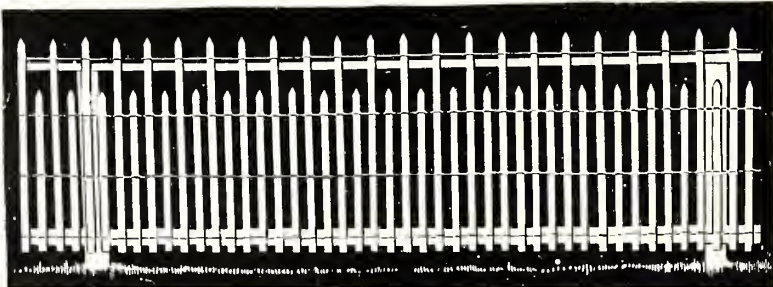


L-Extra Trellis

## Staggered-Top Lawn and Garden Picket Fencing

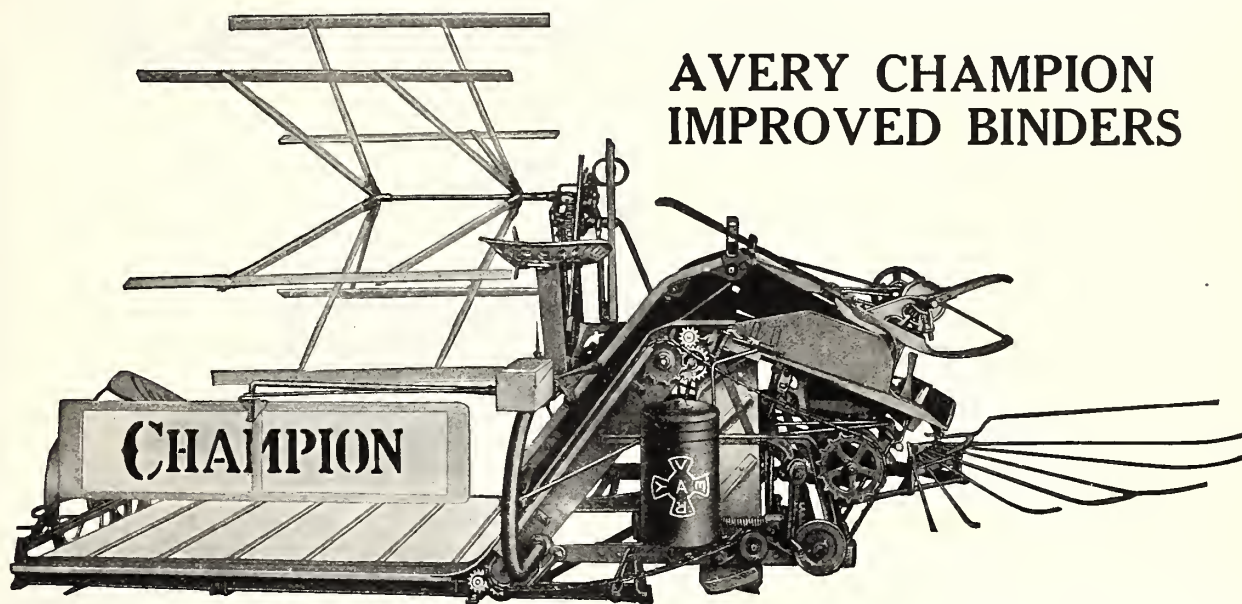
PROTECTION : BEAUTY : ECONOMY

The staggered tops, the Gothic pointed pickets, and rich snow-white finish of this Fence combine to give unusual charm and beauty. For yard or garden, it stands out in rich contrast with its green setting. No ornamental fence, of steel or wire, could be more attractive. Its closely spaced pickets, tightly woven, shut out effectively even small intruders. With this Fence around your garden or yard, you have the best protection from intruders passing through, over or under. The longer pickets are 4 feet in length, and the intermediate pickets are 3 feet long, woven together with four cables of heavily galvanized wire. Pickets are  $\frac{1}{2} \times 1\frac{1}{2}$  inches, and spaced 2 inches apart. Price, 50-foot roll, \$7.25.



**Don't Overlook** Our Nursery Department, pages 49 to 59, including Roses, Shrubs, Vines, Flowering Plants, Evergreens, and Fruit Trees.

## AVERY CHAMPION IMPROVED BINDERS



Three-Quarter Rear View of Binder. Supplied in 6, 7, and 8-foot cuts

Avery's Champion Binder by any other name would still be the Champion Binder, for it has to its credit an unmatched record for durability, for easy pulling, and for getting the grain. Its championship has been challenged time after time, but this sturdy, engineered Binder, with its many special features, is still, after many generations, the Champion Binder—in name, in reputation, and in fact.

**Relief Rake.** Short, tangled, or lodged grain, or grain that is full of weeds and grass, has a tendency to get twisted around and start up the elevator head first, or to clog between the platform and the elevator, unless it is rapidly cleared away. The kicking motion of the Relief Rake straightens out the tangled grain so it reaches the elevator in proper condition. It keeps trash cleared away from the inner end of the platform and prevents trash and grain from accumulating on the inner end of the cutter bar and dragging through uncut grain. This insures cutting a clean swath the full width of the cutter bar.

**Force Feed Elevators.** The illustration shows a cross-section view of the Force-Feed Elevator in operation. Note that the upper elevator canvas runs over three rollers so arranged that the lower surface adjusts automatically to light or heavy grain. This arrangement insures a positive feeding of grain to the packers and also permits of running the canvas comparatively slack which greatly increases its length of service. Another big improvement in Binder construction is the roller between the upper end of the lower elevator and the binder deck. It insures a force feed of grain down into the binding attachment, which prevents loss from grain backing up against the end of the elevator and being carried down between the end of the elevator and the deck.

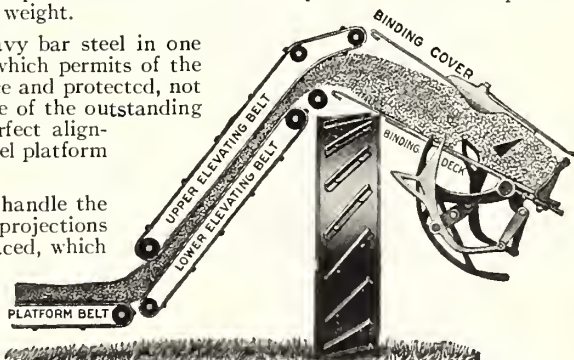
The Force-Feed Elevator is one of the exclusive Champion features. It combines all of the advantages and none of the disadvantages of both the floating and rigid types of elevators.

See cross-section view below showing how grain is fed to the packers.

**Balancing Sectors.** The Sectors which form the brackets of the main wheels are inclined forward at the top and curved to the rear at the bottom. This inclination of the Sectors moves the machine forward and back over the axle as it is raised and lowered. This keeps the machine perfectly counterbalanced at every height, whether it be tilted forward for cutting short, tangled or badly lodged grain, or raised for cutting tall grain. This perfect balance of the Champion insures easier operation of mechanical parts, less draft, and also relieves the team of neck weight.

**Main Frame.** The Main Frame is substantially made of heavy bar steel in one piece and is securely braced. It has two strong cross members which permits of the large bevel gear and knife crank-shaft being securely held in place and protected, not outside the frame as in other makes. Its remarkable rigidity is one of the outstanding features of the Champion, as it holds the working parts in perfect alignment under the severest strains incident to uneven ground. The steel platform is securely bolted to this frame.

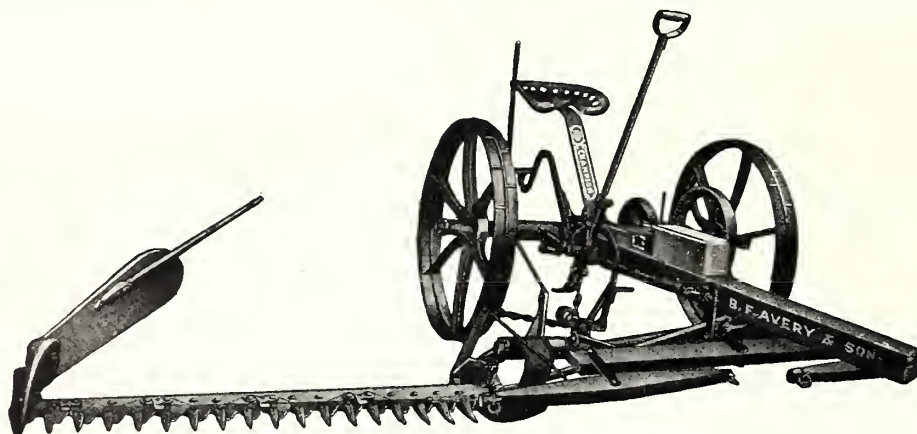
**Platform and Cutter Bar.** The platform is wide enough to handle the tallest grain. The bottom is of the smooth sheet steel with no projections to catch trash. The platform is made of bar steel and strongly braced, which eliminates the danger of the platform twisting out of shape or of the canvas rollers getting out of alignment. The cutter bar is a "Z" angle and effectively braced. It cannot twist, sag or spring out of line, which insures an easy, smooth-running knife. The guards have steel wearing plates and are exceptionally long lived; they can be easily removed and replaced.



Force Feed Elevator

SPECIAL CATALOGUE AND PRICES WILL BE SENT ON REQUEST

## EVERY CHAMPION IMPROVED MOWERS



**Avery Champion Standards.** For many years the name Champion has stood for fine hay tools. For nearly a century the name Avery has stood for the highest type of shop and designing practice in the production of Avery farm machinery. Since the acquisition of Champion goods by Avery, every working part, every shop appliance, every manufacturing process has been made to conform, without compromise, to the standards which Avery has maintained since 1825. The Avery Champion Mower, with its outstanding features, is a notable example of the results which could naturally be expected from such a combination. It is the standard toward which all mowing-machines aim, but which Avery Champion alone attains.

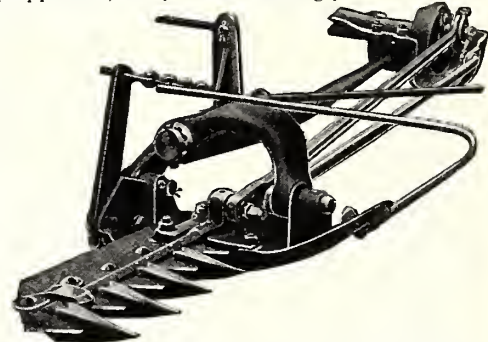
The Avery Champion Mower possesses many features of superiority. The draft-link is parallel to the pole; the malleable fly-wheel is removable and replaceable. The cutter bar is reinforced over its entire length. There is no part of an Avery Champion Mower that does not bespeak unusual excellence of design and manufacture.

**One-Piece Steel Pitman.** The One-Piece Steel Pitman on the Avery Champion Mower eliminates the greatest trouble to which mowing-machines have always been subject. There are no connections to come apart. There are no rivets to work loose. Shocks which would break a wood Pitman will simply bend an Avery Champion Pitman with no damage done that cannot be corrected on the spot. The section of the shaft, the special analysis of the steel, and the careful and scientific heat treatment all make for reliability, sturdiness, and permanence.

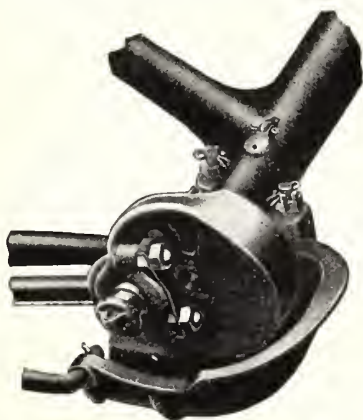
Every farmer knows that the elimination of the Pitman trouble does away with the bulk of the difficulties that are to be experienced with mowing-machines. The Avery Champion One-Piece Steel Pitman eliminates Pitman trouble of all kinds and simplifies in many ways the more serious problems of the hay farmer.

**Drop Forged Knife Head.** The extra-long Drop Heat-treated Steel Knife Head is hard and wear-resisting at the points where it is subject to extreme friction and tough and strong where it is subject to breaking strains. It is long-wearing and practically unbreakable, a saver of time, trouble, and money.

**Closed End Bearing.** The Closed End Bearing at the fly-wheel of the Pitman is an important feature of Avery Champion superiority for two reasons. First, due to the fact that it is confined at the inner end instead of the outer end, the normal tendency to bind is almost entirely eliminated. Second, due to the closed end of thimble construction and to the natural slanting position of the crank-pin, the tendency to lose oil is done away with. The net result, therefore, is perfect alignment at all times and a bearing which works without binding and does not overheat.



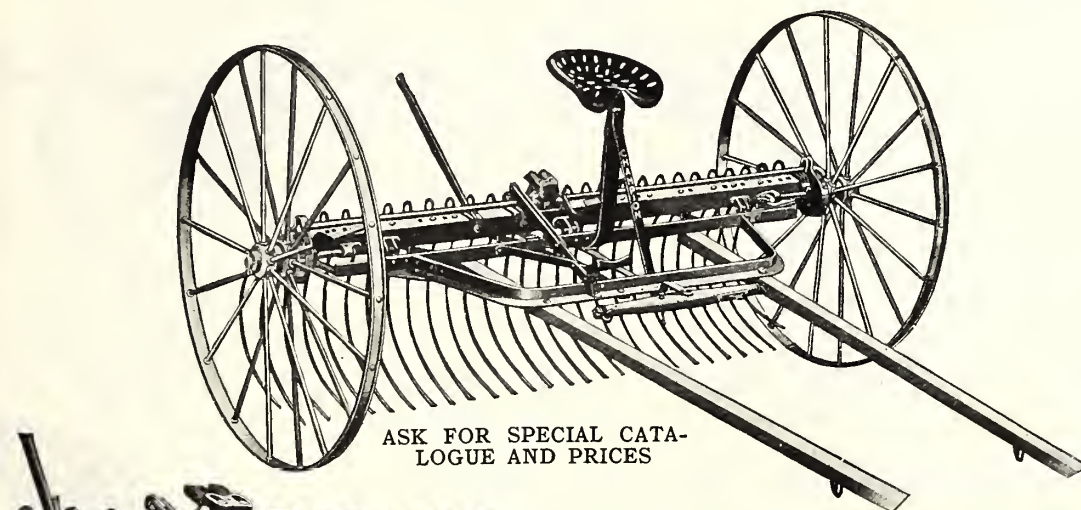
Sectional view showing the self-adjusting pitman and knife head connection and the wide, substantial coupling yoke which holds the cutter bar in perfect alignment.



| Description                         | Weight   |
|-------------------------------------|----------|
| 4½-ft. Regular Lift.....            | 726 lbs. |
| 5-ft. Regular Lift.....             | 731 lbs. |
| 4½-ft. Vertical Lift.....           | 735 lbs. |
| 5-ft. Vertical Lift.....            | 740 lbs. |
| 4½-ft. Big Frame, Regular Lift..... | 793 lbs. |
| 5-ft. Big Frame Regular Lift.....   | 798 lbs. |
| 6-ft. Big Frame Regular Lift.....   | 815 lbs. |
| 7-ft. Big Frame Regular Lift.....   | 825 lbs. |
| 3½-ft. One-Horse Vertical Lift..... | 540 lbs. |

ASK FOR SPECIAL CATALOGUE AND PRICES

# AVERY CHAMPION IMPROVED SELF-DUMP RAKES



ASK FOR SPECIAL CATALOGUE AND PRICES



This illustration shows the teeth lowered in raking position with the seat standards removed in order to show the trussed bridge-like construction of the angle-steel frame and the simplicity of the dumping device. This view also shows to good advantage the effective arrangement of leverage in the locking device, a slight pressure of the foot on the pedal serving to hold the teeth in raking position against all ordinary working pressure in the heaviest grasses.

until the trip lever or the dumping device is released by the operator. The locking lever does not extend below the frame to catch in the hay and interfere with the clearance of the teeth in dumping. This relieves the operator of holding the teeth down when working in unusually heavy hay. No matter how heavy the load, the Rake will not dump until the trip lever is released.

The change from one to two-horse operation can be quickly made by bolting the thills together.

**Teeth.** Teeth are  $\frac{3}{8}$ -inch single-coil and made of oil-tempered spring steel and attached to the rake-head by malleable lips. Furnished in 8-, 9- and 10-foot sizes.

Notable improvements in both the structural and mechanical features of the Champion Self-Dump Rake have placed it far in advance of similar implements for durability, ease of action, and effective operation in the field. The frame is made of steel angles, braced and trussed in a bridge-like construction that will not twist under severest working conditions.

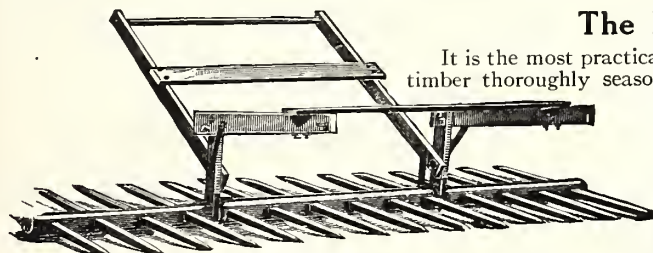
Large substantial wheels with staggered spokes provide ample traction and strength to insure smooth operation in the heaviest grasses. The stub axles are reversible, giving double the normal amount of service at the wheel boxes.

The new dumping device on the Champion Self-Dump Rake is simplicity itself. It is small and compact, with the fewest possible working parts, and absolutely positive in action. Short, powerful coil-springs, acting directly upon the ends of the dumping-rods, afford instant engagement of the pawls in the wheel ratchets and insure positive and continued connection at these points until the dumping action is completed and the trip automatically released. The new device has no complicated mechanism to get out of order and delay work. The cleaner teeth are of flat machinery steel, attached to the cleaner angle with machine and hook bolts. They are held in position by a bolted steel angle just behind the rake-head, no part of this construction to break or work loose.

A simple arrangement of leverage holds the teeth down in raking position

## The Huber Revolving Hay-Rake

It is the most practical Rake in use, and is made of the best selected hardwood timber thoroughly seasoned. The teeth are square and are framed in the heads perfectly solid, thus giving them more strength and making them less liable to come loose and break, and enabling them to gather the hay better than a round-tooth Rake. Leaves the hay in better shape for pitching and building than any other style of Rake. 8-ft., 14 teeth, \$15; 9-ft., 16 teeth, \$16.



## Bale Ties

We make a specialty of furnishing Steel Wire Hay Bale Ties for baling hay, straw, waste paper, etc., to suit all the different sizes and styles of balers. We carry in stock at Pittsburgh for quick shipment the leading sizes of cross-head and single-loop ties and can also make prompt shipments direct from factory. Prices will be quoted on request.



Cross-Head



Single-Loop

## Champion Side Delivery Rake and Tedder

Where hay is of heavy growth or likely to be rained on after cutting, the Champion Combined Side Delivery Rake and Tedder will be found indispensable in not only preventing loss to the crop but actually increasing its value.

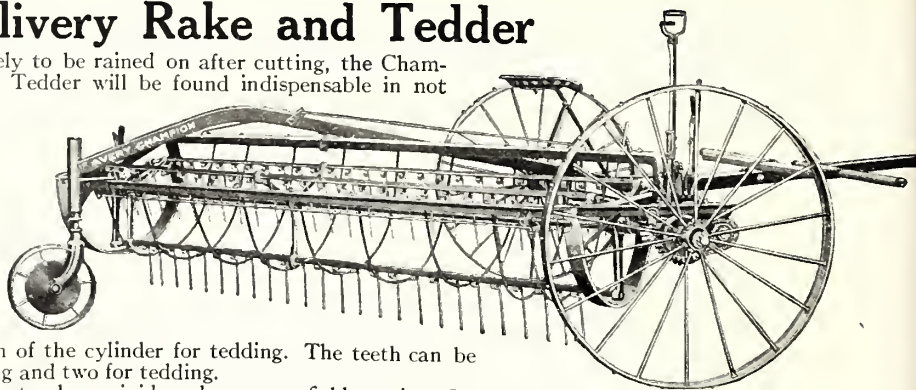
### Two Machines in One

When used as a rake, the cylinder revolves in the direction in which the rake travels, delivering the hay in light, fluffy windrows on the left-hand side, which permits of following the mower closely as the hay is deposited on the raked stubble.

Shifting the lever reverses the direction of the cylinder for tedding. The teeth can be adjusted to three different angles for raking and two for tedding.

The angle-steel main frame is built to stand up rigid under severe field service. Its 40-inch main wheels are lugged to prevent slipping and ratcheted to prevent dragging when turning. The caster wheel adjusts to suit varying field conditions. Reel can be raised or lowered at both ends. Large tubular shaft operates in bearings with removable bushings. Rake-heads are secured by heavy pins. Rake-teeth are made of oil-tempered steel, 12 inches long with triple coils. Ample strength to handle the heaviest hay and sufficient flexibility to yield to obstructions.

PRICE AND SPECIAL CIRCULAR ON REQUEST



## Moline Raker Bar Hay Loader

The Moline Hay Loader will handle the lightest swath or heavy windrow. Its large capacity enables it to take care of the heavy crop as well as the medium or light one.

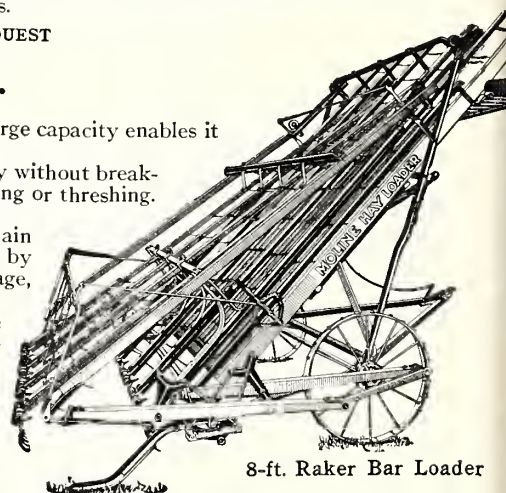
The rakes sweep the ground in long, steady easy strokes and gather up the hay without breaking the stems or shattering the leaves. The hay is always handled without beating or threshing. The Moline Hay Loader saves the foliage.

The rake-bars are driven by means of pitmans and cranks directly from the main axle. The motion produced is slow, very steady, and uniform to a degree unequaled by any other mechanism on the market. Short, choppy strokes, so destructive of foliage, are entirely eliminated by this construction.

This simple driving device eliminates the use of gears, sprockets, chains, or rope webs, thus avoiding all the trouble and delay from breakage which such parts are bound to cause, and the loader will give longer and better service.

The Moline Loader is of all steel construction, which increases its strength and durability yet saves in weight, and makes the machine more easy to handle. Materials and workmanship are of the best. Furnished in 6- and 8-foot sizes and with rear wheels in place of shoe-runners as shown in illustration.

Ask for special circular and price



8-ft. Raker Bar Loader

## Moline Cylinder Hay Loader

Embodied in the Moline Cylinder Hay Loader are all of the improvements in Loader design. For example, one of the most common complaints on cylinder Loaders has been the spreading of the wheels. This weakness has been corrected by using a large pipe axle and long wheel boxings—the strongest type of construction, without excessive weight. It is also durable, built to give years of hard service. Steel parts replace castings; pulleys and wheels have replaceable boxings; the frame is of all-steel construction. These are the features that give long life—and service.

Furnished in 6-foot size and with fore-carriage as shown in illustration.

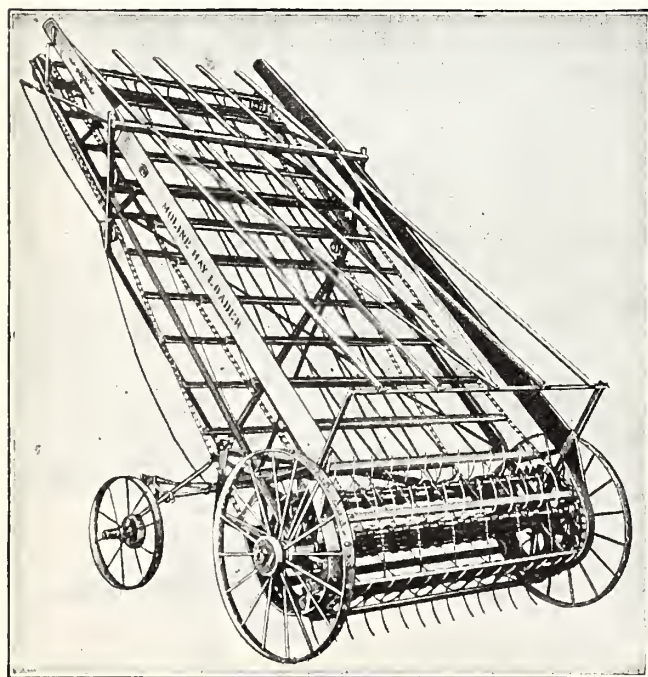
Ask for special circular and price

## Champion Hay Tedders

The Champion Hay Tedder is mounted on a substantial tubular steel main frame that holds the working parts in alignment under the severest strains. The clutch lever for controlling the operation and the hand lever for raising and lowering the forks are both within convenient reach of the driver's seat. The crank-shaft is mounted in three long bearings which hold it in perfect alignment, prevent binding and insure smooth, easy operation.

The fork-tines are made of oil-tempered steel, and are held in position by long coil steel springs, which permit them to be brought close to the ground without becoming damaged by striking obstructions or digging into the ground. Furnished in 6-fork and 8-fork sizes.

Prices and circular on request



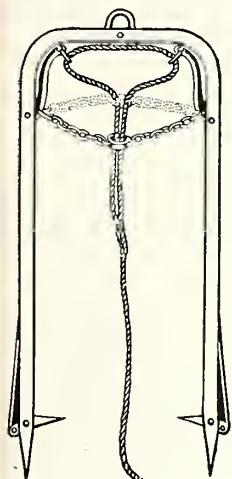
**Myers Clover Leaf Unloader**

Swivel and Reversible 16-inch Truck  
for Double Steel Track

The Myers Clover Leaf Unloader is built of malleable iron throughout. It is heavy and substantially made. Trucks are 16 inches long. Track wheels are large and revolve on  $\frac{7}{8}$ -inch turned steel axles. Lock is composed of three parts and has no springs. This Unloader has wide-open mouth to receive fork pulley when swinging at any angle. Rope sheaves have longer hub than other Unloaders. Knocker and end stop furnished with each Unloader.

**PRICES**

- No. 114. Unloader. Complete as described above. \$9 25  
 No. 201. Adjustable Unloader. 4-inch sheaves, rope draft. Will fit all standard makes of steel track. 9 75  
 No. 824. Double Steel Track, as illustrated. Per foot. 23  
 No. 301. Steel Rafter Brackets, as illustrated. Each. 06  
 No. 302. Steel Track Hanging Hooks, as illustrated. Each. 18  
 No. 266.  $\frac{3}{4}$ -inch Floor Hooks. Each. 18



No. 1314

**Myers Hay Forks**

No. 1314. Myers Double Harpoon Fork. The strongest and stiffest Fork made. The flexible chain instead of a fixed cross-bar permits of the Fork entering the hay to a greater depth. \$3.

No. 773. Nellis Fork is constructed of extra quality material throughout. This Fork is nicely finished. Point is sharp as shown in illustration. \$4.50 each.

**Myers Pulleys**

No. 1120. Has 6-inch wood sheave, 1-inch loose pin, swivel eye. 65 cts. each.

- No. 1133. The frame has heavy ribs and swivel eye and follows the rim of the sheave to a point nearly opposite the axle. Has 6-inch hard maple sheave. 60 cts.  
 No. 434. Reed Wood Frame Pulley. Has 1-in. loose pin, self-lubricating wood sheave, with steel hook. 65 cts. each.  
 No. 466. Not illustrated. Same as No. 434, with Swivel Eye. 65 cts.  
 No. 1124. Made entirely of malleable iron with iron sheave. This is the Fork Pulley for No. 114 unloader. \$1.25 each.



No. 1133



No. 1120



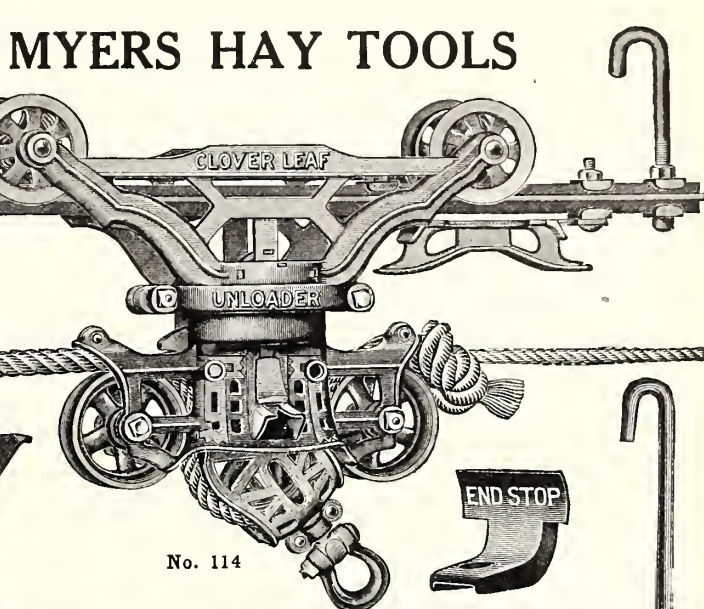
No. 1124



No. 434



No. 773



No. 114



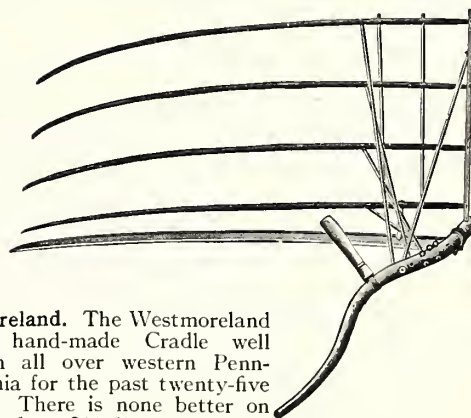
No. 301



No. 824



No. 302

**Grain Cradles**

Westmoreland. The Westmoreland is a hand-made Cradle well known all over western Pennsylvania for the past twenty-five years. There is none better on the market. \$10.50.

- Genuine Schwob. Machine-made cradle, 4-finger ..... Each \$7 00  
 Extra Fingers, hand-made..... 65  
 Extra Fingers, oil-sprung..... 25

**Rope**

We handle the best grades of Manila and Sisal Rope; especially adapted for hay-fork outfits and other hard work where a strong, serviceable Rope is required.

H. & A. "Blue Heart" Manila Rope. Guaranteed to be stronger than Government Standards. It is carefully spun from extra-long, high-grade Manila fiber. It will long outwear ordinary Rope, will resist water and weather, and remains pliable and easy to work with under most adverse conditions.

**SIZES AND PRICES PER FOOT**

|                  | $\frac{1}{4}$ -in. | $\frac{3}{8}$ -in. | $\frac{1}{2}$ -in. | $\frac{5}{8}$ -in. | $\frac{3}{4}$ -in. | $\frac{7}{8}$ -in. | 1-in.              |
|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Manila . . . . . | 1c.                | 1 $\frac{3}{4}$ c. | 3c.                | 5 $\frac{1}{4}$ c. | 6 $\frac{3}{4}$ c. | 9c.                | 11c.               |
| Sisal . . . . .  | $\frac{3}{4}$ c.   | 1 $\frac{1}{2}$ c. | 2 $\frac{1}{4}$ c. | 3 $\frac{3}{4}$ c. | 4 $\frac{1}{2}$ c. | 6 $\frac{1}{4}$ c. | 7 $\frac{1}{2}$ c. |

## Blizzard Ensilage Cutters

GEARS RUN IN OIL

Quality of Work, Capacity, Performance, Safety, Convenience, and Durability, are the factors by which the value of an Ensilage Cutter is determined.

### QUALITY

The Blizzard massive, reinforced, semi-steel cutting wheel carries knife through full throat of corn with no vibration.

The Blizzard outer bearing support prevents knife being pulled to or from shear plate as belt is tightened, these features allowing perfect knife adjustment.

The Blizzard spring pressure on upper feed roll is a counteracting influence against dull knives drawing corn in. The result of these features is better cut ensilage.

### CAPACITY AND PERFORMANCE

At a State University Test a **Blizzard**, running at 571 R.P.M. on  $\frac{1}{4}$ -inch cut, cut and elevated into a 53-foot silo in one hour  $11\frac{3}{4}$  tons of corn on an average of  $13\frac{1}{4}$  H.P. (Full report furnished on request.)

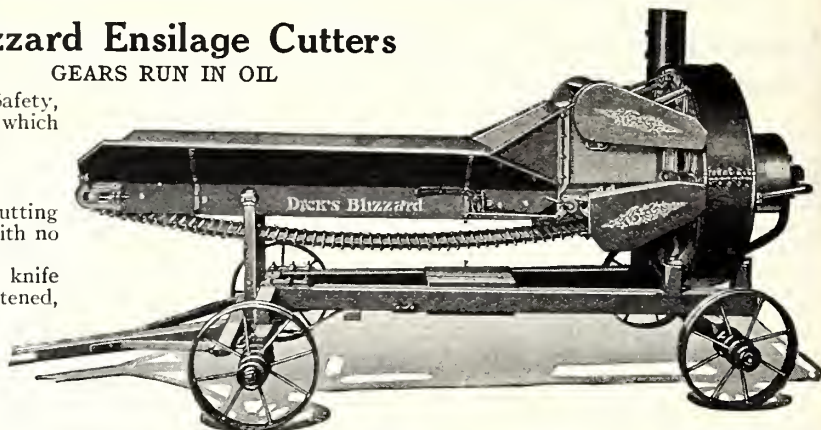
At Hudson, Ohio, the Cleveland Boys' Farm has a silo 49 feet high inside a large round barn. A **Blizzard** was set outside of the barn, 49 feet from the silo; 74 feet of pipe were used, erected at angle of over  $45^\circ$ , and silo was filled with cutter outside of barn; no more backing teams out of barn after unloading was necessary. That is performance.

### SAFETY AND CONVENIENCE

Gears are enclosed and run in oil on the **Blizzard**, eliminating the hazard of fingers or clothing being caught.

The gear-shift or safety lever is placed in horizontal position on either side of feed-table 40 inches from knives. Slight pres-

*Made in Three Sizes. Prices on Request*



sure against this lever toward knives throws machine into reverse. Since the lever is always between operator and knives, it is impossible to be drawn into knives, thereby removing the greatest source of danger. This lever may be placed on either side of feed-table, which is a great convenience in many setups; also to either a right-hand or left-hand operator, or to take advantage of wind.

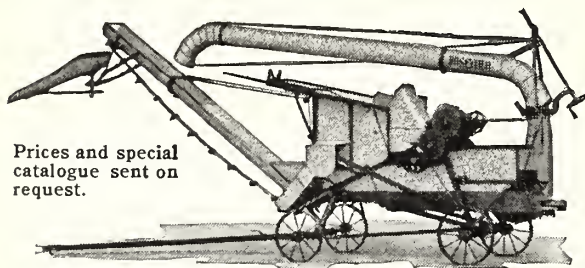
### DURABILITY

#### Laid tool-steel cutting-edge hollow-ground knife

One-piece heavy reinforced fans. Chilled raised edge shear plate. Adjustable lower feed-roller. Gears in bath of oil. Galvanized iron non-rusting pipe, are a few points which make the **Blizzard** a durable machine.

Space prevents even enumerating all features of the **Blizzard**. If you are interested in an Ensilage Cutter, write for a **Blizzard** catalogue which not only fully describes the cutter but has helpful suggestions on ensilage and silo-filling.

## Rosenthal Corn-Huskers and Shredders



Prices and special catalogue sent on request.

**Rosenthal Steel "4".** Capacity, 500-700 bushels a day. Easily powered by 9-18 or 10-20 H.P. tractor

### MADE IN FIVE SIZES

Rated daily capacities in bushels:

No. 1, 200-400; Special "4", 300-500; Steel "4", 500-700; Medium "4", 400-800; Big "8", 700-1,500.

### BUILT BY THE PIONEERS

Back in 1889, August Rosenthal perfected the first mechanical Corn-Husker and Shredder on his father's farm at Reedsburg, Wis. For seven years, August had toiled with model after model. His first machine was powered by "Prince," the old Rosenthal plow-horse.

News of its success flashed through the countryside. His determination and the encouragement of neighbors led to further experimentation and development which ended in him and his brothers establishing a factory and devoting his entire time to the Corn-Husker business.

The Rosenthal Steel "4," announced in 1925, is the latest Rosenthal achievement. It embodies every famous Rosenthal feature. Its capacity fits the needs of the greatest number of farmers.

### SIMPLE CONSTRUCTION

Simple, rugged construction has always been the keynote of all Rosenthal Huskers. All Steel "4" transmission gears are of steel and are enclosed in a solid housing and constantly operate in gear-grease.

### CLEAN HUSKING WITH STALKS DRY, WET OR FROZEN HARD

Every Rosenthal owner marvels at how these machines continue on, hour after hour, husking clean regardless of the condition of stalks.

### SAFE TO OPERATE—NATURAL SELF-FEEDER

With all Rosenthal Huskers, the feeder stands in front, facing the machine. Bundles may be thrown on the table from either side. No spreading of bundles necessary. The feeder simply cuts the bands and lets the bundles slide down into the snapping portion of rollers. This method of gravity feed has proven the only practical way of feeding corn-stalks into machine with safety under all conditions.

### EASY TO MOVE

The Steel "4" weighs 3,225 pounds—an easy haul for the same tractor that furnishes belt power. The corn-carrier is hinged and the upper part folds under, making a compact outfit for the road.

### EASY TO OIL

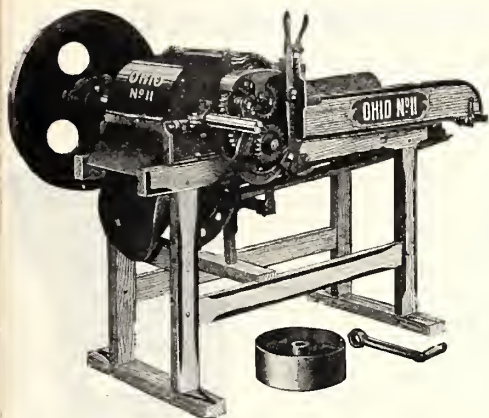
All boxes and bearings may be oiled from outside while machine is running. All main bearings and also the truck wheels are conveniently equipped with grease-cups.

## SPECIAL CATALOGUES

Special catalogue and prices of the following lines not shown in this catalogue will be sent on request.

**Ann Arbor Hay-Presses**  
**Farquhar Threshers and Saw-Mills**  
**Martin Corn-Cribs**  
**Feed Cookers**

Regardless of what you want in the line of Farm Machinery, write us before buying.



## Silver "Ohio" Standard Feed and Ensilage Cutter No. 11 S

The Silver "Ohio" No. 11 S Cutters are powerful machines and are noted for their strength, durability, large capacity, fine workmanship, quality of materials used, satisfactory operation, and the fine quality of feed they produce. They are used for cutting all kinds of dry or green roughage, corn-stalks, hay, straw, clover, etc. They can also be equipped with carrier elevator for filling silos where only light power is available.

They have patented feeding device and throw-out lever, heavy well-balanced safety flywheel. Frame is mortised, tenoned, and pinned. Has wide and well-babbitted bearings. Knives are carefully tempered, high-carbon tool steel and are mounted on our new, curved, sliding knife-blocks for accurate adjustment.

Capacity, 2,500 to 3,000 pounds dry feed per hour and 3 to 4 tons per hour on ensilage.

Power required, 2 to 4 H.P. gas.

Pulley, choice of 6-, 8-, 10-, 12-, or 14- by 4-inch face.

Length of cut,  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , and 1 inch with four knives; double these lengths with two knives.

Weight, 440 pounds.

Shredder blades can be furnished at slight additional cost.

|   |         |
|---|---------|
| Price complete, with four knives.....       | \$68 00 |
| Shredder Blades, each.....                  | 6 75    |
| 12-foot Reversible Elevator.....            | 48 00   |
| 12-foot Straight Delivery Elevator.....     | 43 00   |
| Extra Elevator, either style, per foot..... | 2 30    |

## The "Ohio" No. 8½ Feed-Cutter

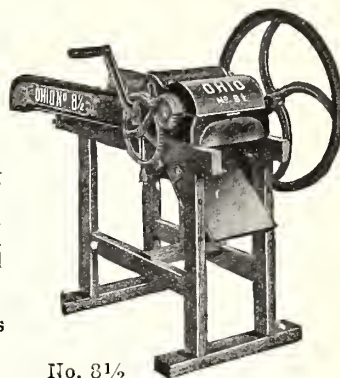
The No. 8½ is an excellent Cutter for anyone needing a small, easy-running machine for cutting all kinds of dry or green food for one or a few head of stock. It is well built and reasonably priced. The feed box is 38 inches long and has 25-inch fly-wheel. The framework is of good hardwood mortised, tenoned, and pinned. Has high carbon steel knives, mounted on knife heads with sliding block for quick, accurate adjustment. The cutter bar is chilled iron and the patented feeding gears and rolls work automatically whether one stalk or an armful is being fed.

Capacity. Cuts one bushel of hay in thirty to forty seconds.

Length of Cut. Cuts  $\frac{1}{4}$ -,  $\frac{1}{2}$ -,  $\frac{3}{4}$ -, and 1-inch lengths with two knives or double these lengths with one knife.

Pulley for Power. Choice of 8- or 10 x 3-inch pulley can be supplied.

Weight 175 pounds. With 2 knives, \$32; Pulley \$1.50 extra. Other sizes quoted on request

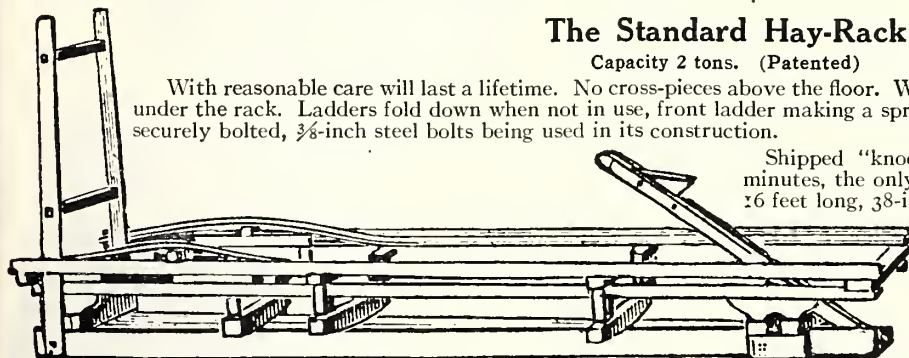


No. 8½

## The Standard Hay-Rack

Capacity 2 tons. (Patented)

With reasonable care will last a lifetime. No cross-pieces above the floor. Wagon can turn short, front wheels turning under the rack. Ladders fold down when not in use, front ladder making a spring seat. Material, clear Washington Fir securely bolted,  $\frac{3}{8}$ -inch steel bolts being used in its construction.



Shipped "knocked down." Can be set up in thirty minutes, the only tool required being a wrench.

16 feet long, 38-inch bolster.....\$36 00

16 feet long, 42-inch bolster.... 39 00

Furnished at the above prices to fit either 38- or 42-inch bolsters. In ordering be careful to state width of bolsters. We solicit early orders for Racks as we often run short in harvest-time.

## H. & A. "Star Brand" Binder Twine

We have always made a specialty of furnishing our customers with high-grade Binder Twine. We will not handle Twine about which there is the least suspicion of shortage in length, poor material, or workmanship.

"Star Brand" Twine is evenly spun from the best fibers, is of full yardage and strength, and is used from coast to coast by farmers who claim it is never cut by insects.

You buy your twine by the pound but you use it by the foot. You must see to it therefore that you get the length you are paying for.

H. & A. "Star Brand" Binder Twine is guaranteed to have the yardage claimed for it, to have ample strength for binding purposes, and to work satisfactorily in any properly adjusted binder.

We furnish the following:

Sisal. 500 feet to the pound.

Standard. 500 feet to the pound.

Manila. 600 feet to the pound.

Manila. 650 feet to the pound.

Write for prices specifying quantity wanted



## Dick's "Famous" Feed Cutters

Feed-Gear Wheels  
Are Encased for  
Safe Operation and  
Protection of Parts  
from Grit and Dust.  
Reversible Feed  
Rolls and Perfect  
Knife Adjustment.

Famous Cutters will cut any material from the finest blue grass to the coarsest corn-stalks, green or dry, with or without ears on, in a first-class manner on the various lengths of cuts found in specifications under each machine. These machines are in each case equipped with all necessary sprockets, gears, chain, etc., to accomplish these results without extra charge, which make these Cutters invaluable for cutting green materials for young chicks and dry fodder for horses, cattle, or sheep.

Having a  $\frac{3}{8}$ -inch cut, these Cutters are practical to cut materials for small chickens. This short cut and shredder-bars also give the farmer who is not operating on large enough scale to warrant his buying a large tractor and grinding plant, a machine at low cost with which he can cut or pulverize all kinds of fodder in a satisfactory manner with a small inexpensive power.

He can mix these materials after they are cut, or cut and shredded, with his grain or alfalfa and whether it is dairy cows, beef cattle, poultry, or horses, feed them the ration which he desires.

Special circular on request.

**No. 2B.** Throat  $6 \times 2\frac{1}{2}$  inches. Length of cut  $\frac{3}{8}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{4}$  inch. For hand use. Weight, 150 pounds. Price \$36.

**No. 3C.** Throat  $7\frac{3}{4} \times 2\frac{1}{2}$  inches. Lengths of cut same as No. 2B. For hand use. Weight, 175 pounds. Price \$40.

**No. 4D.** Throat  $7\frac{3}{4} \times 2\frac{1}{2}$  inches. Lengths of cut  $\frac{3}{8}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{4}$  inches. Speed 500 to 600 revolutions per minute. Power required 1 to 2 H.P. When run by power, capacity 1,000 to 3,500 pounds per hour, depending on speed and length of cut. Weight, 240 pounds. For hand use. \$56. For hand or power use \$60.

**No. 5E.** Throat  $9\frac{1}{2} \times 3$  inches. Lengths of cut same as No. 4D. Speed 500 to 600 revolutions per minute. Power required 1 to 3 H.P. When run by power, capacity 1,500 to 5,000 pounds per hour, depending on speed and length of cut. Weight, 350 pounds. For power use only, \$63. For hand or power use, \$69. Capacity of all sizes depends on speed, lengths of cut, and conditions of fodder.

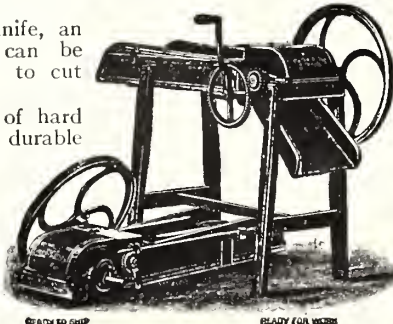
## The Kokosing Feed-Cutter

A hand machine that is cheap, strong, durable, well finished, and at the same time has good capacity and does its work rapidly and with ease.

It has an 11-inch knife, an automatic feed, and can be changed in a moment to cut various lengths.

It is made entirely of hard wood, and is the most durable Cutter of the kind ever made.

All things considered, it is the cheapest hand Feed-Cutter ever offered to the trade. \$28.50; with belt wheel, \$30.75.



READY TO SHIP

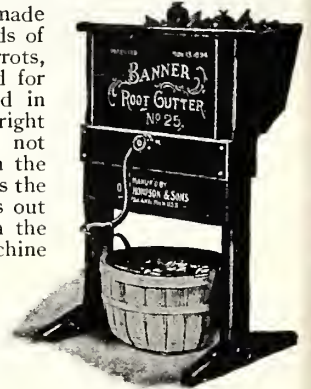
READY FOR USE

## Thompson's Banner Root Cutters

FOR CUTTING ALL KINDS OF ROOTS  
AND VEGETABLES FOR STOCK FEEDERS

No. 25

For hand use. This machine is made for cutting and preparing all kinds of roots, like beets, turnips, carrots, potatoes, and pumpkins into feed for cattle and hogs, leaving the feed in long, half-round slices, just the right size, so the cattle and hogs will not choke. It has a shaking grate in the bottom that works up and down as the machine is turned, and this takes out the dirt so it will not go in with the feed, and it also makes the machine feed faster. The up- and down-motion of this grate is regulated by a cam which can be moved forward or back on the shaft by loosening a set-screw, and in this way it can be adjusted to agree with the size of the roots that are to be cut. Price \$17.50.



No. 25

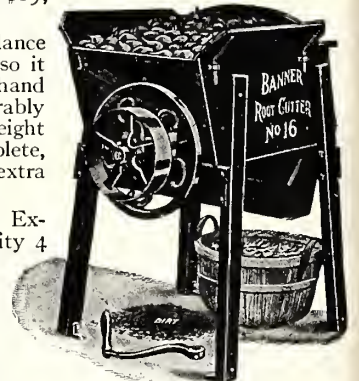


No. 20

**No. 20.** The popular Cutter for all ordinary requirements where hand power is used. Capacity 30 to 50 bushels per hour; weight, about 125 pounds. \$19; extra knives \$2.50 per set.

**No. 16** is supplied with balance wheel, pulley, and crank, so it can be used by power or hand as desired. It is considerably larger than the No. 20; weight about 150 pounds. Complete, pulley and crank, \$32.50; extra knives \$2.50 per set.

**No. 10.** (Not illustrated.) Exclusively for power, capacity 4 to 6 bushels per minute. Just the machine for large feeders who drive machinery by power. This is a large, strong machine; weight about 300 lbs. Complete, for power use, \$42.50; extra knives \$3.25 per set.

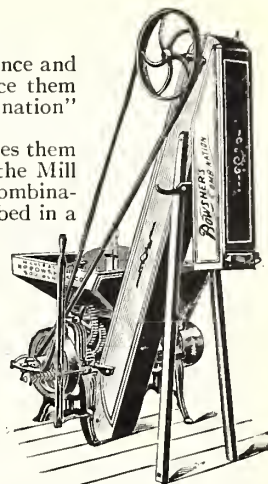


No. 16

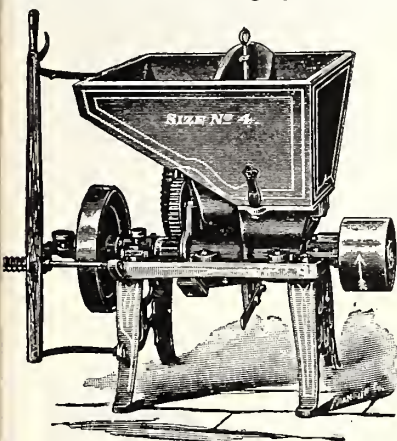
For description and prices of "Banner Root Cutters for Poultry," see page 171

**WRITE FOR SPECIAL  
CATALOGUE**

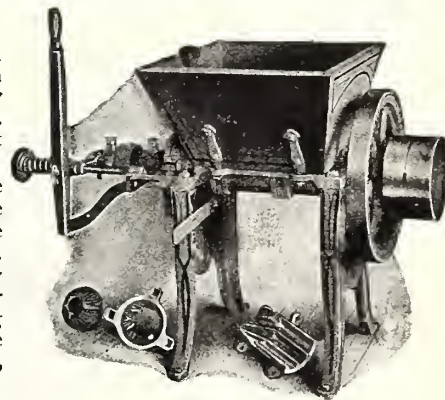
For description and prices of smaller Mills, see pages 172 and 173



No. 8



No. 4



No. 0

that ear corn may be shoveled into it. It is an in-line, but is sufficiently wide and long to handle 100 bushels of corn. It is equipped with the cone-shaped grinders, the wooden relief lever, and many other advantages of the larger sizes. Power required, 2 to 4 horse-power. Without elevator, \$36; with 3-in. short elevator, \$51.

## Clipper Grain and Seed Cleaner

The Clipper has no worthy competitor. It is used by seedsmen almost exclusively. No other Cleaner cleans so clean—none other sells so cheap. It will last a lifetime and earn its cost every year it is used on a well conducted farm.

The Clipper screen outfit is very complete for the work required and contains screens for wheat, oats, barley, rye, red and alsike clovers, alfalfa, sweet clover, timothy, millet, flax, peas, beans, cowpeas, soy beans, grading seed corn, cleaning clover containing buckhorn, plantain or ripple, cleaning timothy seed containing pepper grass and sorrel, also cane seed, milo maize, kaffir corn and separating corn from oats.

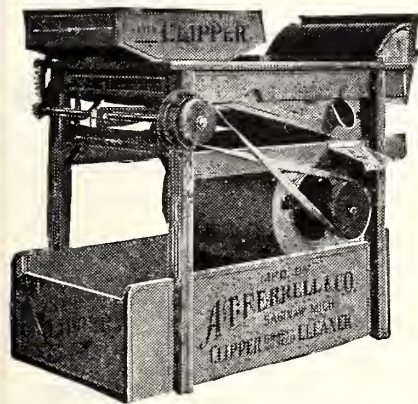
The vertical air blast of the Clipper is a feature that no other Cleaner has, and it makes possible the most difficult separations that can be made in no other way. For instance, in cleaning seed grain, if the belt is properly adjusted on the pulleys, so as to get the correct speed of the fan and if the turning is regular, you can remove the light grains from the heavy, to the extent that the weight of the grain being cleaned can be raised from 3 to 5 pounds per bushel.

**No. 1-B Clipper** is a farm-size hand-mill that will clean 20 bushels of seed wheat per hour, or 10 bushels of clover or timothy seed per hour. Dimensions: Length, 4 feet 8 inches; width, 2 feet 2 inches; height, 3 feet 8 inches; weight, crated, 185 pounds.

Twelve screens, 19 inches wide and 22¼ inches long, go with the No. 1-B Mill, and rye, oats, corn, barley, peas, beans, clover, timothy seed, other grass seed, garden and vege-

Plain directions for separating go with each Mill. These are so easily understood that anyone can learn in a few minutes how to make the most delicate separations. \$38. Power Pulley, 6-in. diam., \$1 extra.

The No. 2-B Clipper does exactly the same work as the No. 1-B. Its capacity per hour is 25 bushels grain and 15 bushels of grass seed. The screens (12 in number) are 6 inches wider than the No. 1-B screens. Dimensions of No. 2-B are 4 feet 8 inches long, 2 feet 8 inches wide, 3 feet 8 inches high; crated weight, 210 pounds. No. 2-B can be run easily by hand for cleaning grass seed, but for cleaning grain some kind of power should be applied— $\frac{1}{2}$  horse-power is sufficient. Price with 6-in. diam. Power Pulley, \$48.

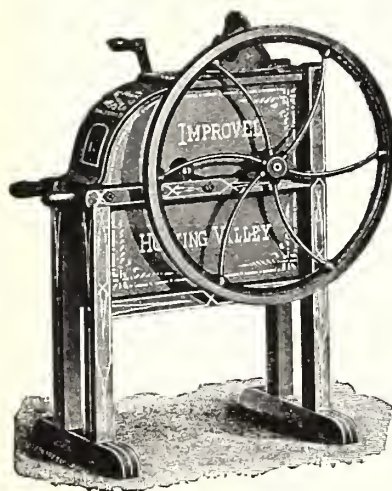


### The No. 1-B Clipper Seed Cleaner

outfit suitable for cleaning seed wheat, rye, oats, corn, barley, peas, beans, clover, timothy seed, other grass seed, garden and vegetable seeds.

## Hocking Valley Corn Shellers

### ONE-HOLE SHELLER



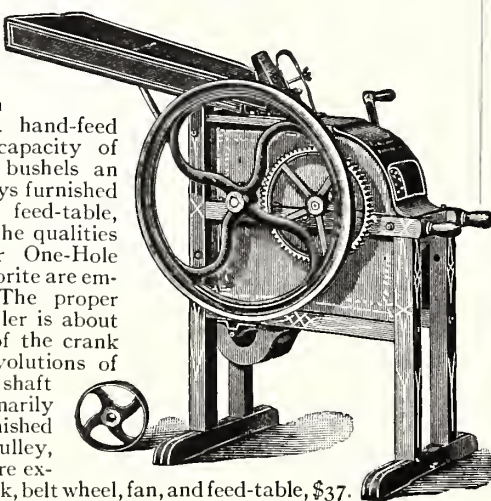
The Hocking Valley One-Hole Sheller is the standard Sheller with which all others are compared. It fully deserves all its popularity. It is carefully made of the best material that can be gotten, and is always perfectly satisfactory in its working. It is furnished either with or without fan, feed-table, and pulley, and has a capacity of from 20 to 25 bushels an hour.

#### PRICES

|                          |         |
|--------------------------|---------|
| With fan.....            | \$17 25 |
| Without fan.....         | 15 50   |
| Feed-table, extra..      | 1 25    |
| Clamp pulley, extra..... | 1 25    |

## Two-Hole Sheller

The Hocking Valley Two-Hole Sheller is intended to be used either by hand or with power. It is a hand-feed Sheller with a capacity of about 35 to 40 bushels an hour, and is always furnished with crank, fan, feed-table, and pulley. All the qualities which make our One-Hole Sheller such a favorite are embodied in it. The proper speed of the Sheller is about 100 revolutions of the crank shaft, or 300 revolutions of the balance wheel shaft a minute. As ordinarily sent out, it is furnished with an 8-inch pulley, and both shafts are extended. With crank, belt wheel, fan, and feed-table, \$37.

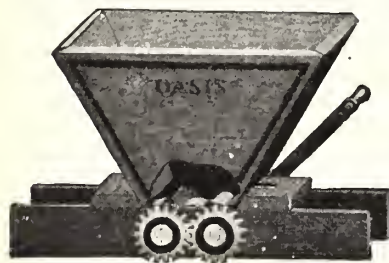


## Black Hawk Corn Sheller

The Black Hawk Corn Sheller has enclosed hopper and separator. This prevents scattering of the shelled corn. A wonderfully fast and easy running Sheller. Instantly fastened to barrel or box by two large strong clamps with wing nuts. For illustration, see page 173. Price \$3.25; postpaid \$3.65.

## No. 18 Oasis Fruit Crusher

The No. 18 was designed to meet the requirements of the user who needs only a small, low-priced, quality Crusher. It does the work and is well worth the money. Equipped with two six-pointed star-shaped iron rolls 5 inches long. The hopper, made entirely of wood, holds a half bushel, and is made to accommodate a standard size grape-box. It is attached to the wood frame by two small lugs and is easily and quickly removed for cleaning. \$5.25.



## Hocking Valley Cider Mills

Equipped with wood-roll grinding cylinder—the most efficient all-purpose grinding device made. Guaranteed to be entirely satisfactory in execution, ease of operation, capacity, durability, and finish. Manufactured from the best materials obtainable by skilled workmen, they maintain that high standard of quality and excellence for which all Hocking Valley goods are famous. Bearings bored and reamed to machine fit. All cross rails reinforced with steel tie rods. Hardwood slats riveted at both ends, not nailed. All joints mortised and tenoned. Bottom side rails, a distinct feature. Bottom pressing head mortised, tenoned, and gained. Special Acme Thread, die-cut steel screw. Bearings bolted to side rail. Laminated hardwood cylinder, grain opposed. Crucible steel serrated knives. Mills furnished with hinged tubs at prices named.



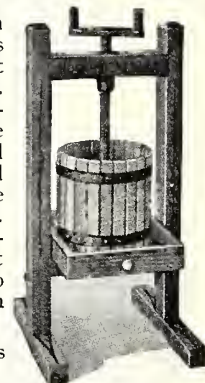
|                               |         |                               |         |
|-------------------------------|---------|-------------------------------|---------|
| <b>Bantam Mill.</b> 1 tub...  | \$22 50 | <b>Medium Mill.</b> 2 tubs... | \$40 00 |
| <b>Junior Mill.</b> 2 tubs... | 33 00   | <b>Senior Mill.</b> 2 tubs... | 52 00   |

Power Pulley for all Mills except Bantam, \$2 extra.

## The Hocking Valley Fruit Press

In the design, construction, and selection of materials for the Hocking Valley Presses we offer a product superior in every respect to any hand Fruit Presses on the market. Frames are of selected, well-seasoned hardwood, finished in the natural color of the wood. All posts and feet mortised and tenoned, and bottom cross-piece reinforced with steel torsion rods, making an absolute rigid construction to withstand hard usage. Cross-heads are of hardwood, with a cast-iron nut for the screw securely fastened at the bottom, and a cast washer on the top to prevent the wobble so often found on presses with wood cross-heads.

Furnished with hinged tubs at prices named.



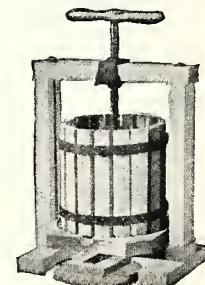
|  |          |
|--|----------|
| <b>No. 1A.</b> Size of Tub 10 x 10½ in., capacity about 10 qts., | \$10.    |
| <b>No. 2A.</b> Size of Tub 11½ x 11¼ in., capacity ½ bus.,       | \$13.    |
| <b>No. 3.</b> Size of Tub 14¼ x 12¼ in., capacity ¾ bus.,        | \$15.50. |

## No. 0 Oasis Wooden Fruit Press

### FOR USE ON TABLE OR BENCH

The No. 0 Oasis Fruit Press is a small, durable, reasonably priced wood Press for home use. Frame is made entirely of selected hardwood. The sides are bolted to cross-pieces and feet by heavy 18-inch bolts which fit in grooves in upright pieces. The tub slats are beveled and are riveted to heavy steel bands. The Steel Press Screw has a clean-cut thread and operates through a heavy nut which completely surrounds the cross-head. This type of nut not only adds strength to the cross-head, but acts as a support at top, preventing the wobble usually found on small Presses.

Size of tub 9 x 9¼ in. Capacity about 8 quarts. \$6.25.



# PAINT AND ROOFING



For more than half a century this line has been the world's leader—that's why we carry it. When you have need for anything in the paint and varnish line you can depend upon Sherwin-Williams products.

## S W P House Paint

|                         | 1/2 pt. | Pt.    | Qt.    | 1/2 gal. | Gal.   | 5 Gal.  | 50-gal. bbl. |
|-------------------------|---------|--------|--------|----------|--------|---------|--------------|
| Regular colors.....     | \$0 35  | \$0 60 | \$1 00 | \$1 80   | \$3 45 | \$17 00 | \$167 50     |
| Flat White.....         | 40      | 65     | 1 05   | 1 90     | 3 65   | 18 00   | 177 50       |
| Outside Gloss White.... | 40      | 65     | 1 05   | 1 90     | 3 65   | 18 00   | 177 50       |
| China Gloss White.....  | 40      | 65     | 1 05   | 1 90     | 3 65   | 18 00   | 177 50       |
| French Crown Green....  | 45      | 70     | 1 10   | 2 05     | 3 90   | 19 25   | 190 00       |
| Moss Green.....         | 45      | 70     | 1 10   | 2 05     | 3 90   | 19 25   | 190 00       |

Color card sent on request

## Vitex Smooth-surfaced Roofing

Here is a Roofing that gives good service at a medium price—for steep-roofed buildings, for valleys, flashings, etc.

The base is a good-quality felt, thoroughly saturated, and then thickly coated with asphalt, refined in our own plants especially for use in smooth-surfaced roll Roofings. Both sides have medium corrugations and are surfaced with talc. Each roll contains 108 square feet and nails and cement for proper application. Detailed direction sheet in each roll. Width of roll 36 inches.

|             | Roll   |
|-------------|--------|
| Light.....  | \$1 80 |
| Medium..... | 2 25   |
| Heavy.....  | 2 70   |

10-roll lots, 10 cts. per roll less.

## Tomahawk Smooth-surfaced Roofing

A low-priced Roofing for temporary buildings, sheds, out-buildings, etc.

Tomahawk is made in the usual manner by saturating and coating dry felt with asphalt. Both sides are finished with broad corrugations and talc surfaced. Considering its low price, Tomahawk represents a very good value.

Each roll contains 108 square feet and nails and cement for proper application. Detailed direction sheet in each roll. Width of roll 36 inches.

|             | Roll   |
|-------------|--------|
| Light.....  | \$1 40 |
| Medium..... | 1 70   |
| Heavy.....  | 2 00   |

10-roll lots, 10 cts. per roll less.

## Commonwealth Paint

A line of bright, handsome colors for painting garages, fences, arbors, barns, and other buildings where a durable and serviceable paint is desired at a moderate price. These paints are easily applied, have splendid covering, and dry with a handsome, uniform oil gloss.



|                                 | Qt.    | 1/2 gal. | Gal.   | 5 Gal. | 50-gal. bbl. |
|---------------------------------|--------|----------|--------|--------|--------------|
| Black and Brown..               | \$0 60 | \$1 05   | \$1 85 | \$9 00 | \$87 50      |
| Red.....                        | 65     | 1 10     | 1 95   | 9 50   | 92 50        |
| Dark Green and Light Yellow...  | 75     | 1 30     | 2 40   | 11 75  | 115 00       |
| Ivy-Green, Olive-Green and Gray | 85     | 1 45     | 2 70   | 13 25  | 130 00       |
| Orange-Yellow and White.....    | 90     | 1 55     | 2 95   | 14 50  | 142 50       |

## Ebonol

The general utility black paint for industrial and home uses. Roofs, boilers, iron fences, derricks, wood, or metal. Black only. Gal. \$1, 5 gals. \$4, 50-gal. bbl. \$35.



## Elastic Roof Cement (Liquid)

A combination of elastic waterproof compounds and asbestos fiber. A durable and effective coating for old and new roofs of any kind applied with 3-knot brush.

|                        | Gal.    | 5 Gal. | 50-gal. bbl. |
|------------------------|---------|--------|--------------|
| Black.....             | \$1 10  | \$4 50 | \$40 00      |
| Red and Green.....     | 1 60    | 7 00   | 65 00        |
| Three-Knot Brush. Each | \$1.75. |        |              |

## Elastic Roof Cement (Paste)

Recommended for patching large or small holes in roofs, gutters, valleys, etc. Easily applied with a trowel. Black, 1-lb. can 18 cts., 5-lb. can 75 cts.; Red or Green, 1-lb. can 23 cts., 5-lb. can \$1.

## Everlastic Mineral-surfaced Roofing

EVERLASTIC IS AN UNUSUALLY GOOD MINERAL-SURFACED ROOFING

Used on all kinds of steep-roofed buildings for Roofing, for flashings or valleys and as a starting strip for shingles it is unusually durable and trouble-proof. The felt base, asphalt saturant, and asphalt coating are of the very best quality—generously used. Every step in the manufacture is under continual laboratory control.

The surfacing is natural mineral in unfading colors, securely embedded so the Roofing does not require painting or staining.

Each roll contains 108 square feet and galvanized nails and cement for proper application. Detailed direction sheet in each roll. Furnished in either Soft Red or Moss Green. Width of roll 36 inches. Weight 85 to 90 lbs. \$3.25 per roll; 10-roll lots, \$3 per roll.



## Fairbanks-Morse Type "Z" Engines

OPERATED ON KEROSENE  
OR GASOLINE

OVER 400,000 "Z" ENGINES NOW IN USE

That in itself is worth your closest consideration—the fact that there have been over 400,000 "Z" Engines sold in all parts of the world. When a product leads its field as the "Z" does, you may be sure there's a good reason for its leadership. The "Z" is today the perfected result of over twenty-five years of pioneer Engine development.

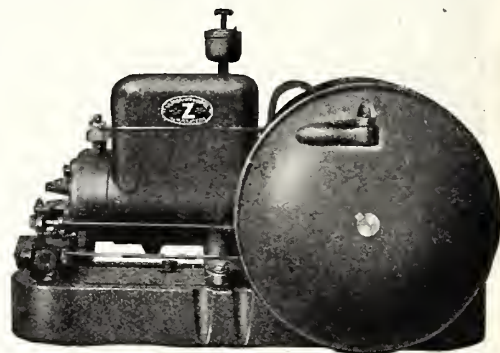
You don't buy an Engine every day. Therefore, make it a test job, not a guess job. Go over the "Z"—get right down into its working parts; you'll find feature after feature that mean economy and power and dependability and long life, advantages that make the "Z" the Engine to do your work quickly, easily, and at lowest cost.

### THE FAIRBANKS-MORSE "Z" ENGINE DOMINATES THE FARM ENGINE FIELD

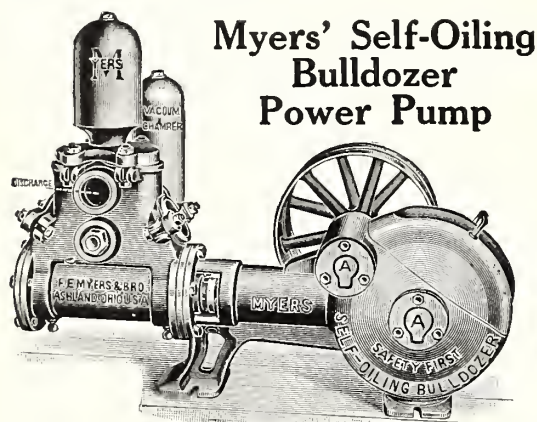
|   | Price   |
|---|---------|
| 2 Horse-power "Z", Dry Cell Ignition, pulley 4-in. diam. x 3½-in. face... | \$54 00 |
| 2 Horse-power "Z" with Magneto, pulley 4-in. diam. x 3½-in. face.....     | 65 00   |
| 3 Horse-power "Z" with Magneto, pulley 10-in. diam. x 6-in. face.....     | 114 00  |
| 6 Horse-power "Z" with Magneto, pulley 12-in. diam. x 6-in. face.....     | 174 00  |
| No. 11 Belt-Driven Pump Jack.....   | 14 00   |
| Four-wheel Truck for 1½ Horse-power Engine.....                           | 7 00    |
| Four-wheel Truck for 3 Horse-power Engine.....                            | 11 00   |
| Four-wheel Truck for 6 Horse-power Engine.....                            | 19 00   |

6-in. diam. x 4 in. face pulley will be furnished on 2 Horse-power engines at no extra charge.

Price on larger size engines quoted on request. Write for special catalogue.



2 Horse-Power Engine Equipped with Magneto



Continuous Performance 24 Hours a Day  
Without Attention

A single-cylinder, double-acting Power Pump. The power end consists of a one-piece casting which forms the base of the Pump and oil-reservoir, and in connection with a lid encloses all working parts, protecting them from dirt or injury, and securing safety of operation. This casting is completely machined at one setting for all bearings, the crosshead, cylinder-head and shaft bearings, insuring alignment of all working parts. The pinion and gear are mounted between double bearings (A)—these bearings are renewable. Both gear and pinion are machine cut from the solid—the gear is cast-iron and the pinion steel. An eccentric cast integral with the main gear operates the crosshead through a connecting rod which is adjustable for wear at the eccentric end, and is fitted with a renewable bronze bushing at the crosshead end. The crosshead is of large diameter, running in a bored guide. From the oil reservoir in the base, oil is carried by the main gear to the highest parts of the Pump, and by a system of channels distributed to all, by the main gear to the highest parts of the Pump, and by a system of channels distributed to all moving parts and returned again to the reservoir. This system of flood lubrication contributes quiet operation and long life, with a minimum of attention.

Has 2½-inch, brass-lined cylinder in one piece, attached to the power end by heavy bolts. Suction and discharge piping may be taken from either side.

No. 912. Maximum capacity 540 gallons per hour at pump. 1¼-in. suction and discharge, 12 x 2 in. tight and loose pulley. Power required, two H.P. \$48.

Ask for special catalogue and prices of larger sizes.



Rex

## Iron Pumps

### Rex Deep-Well Lift Pump

This is our new pattern anti-freezing, constant-flowing Deep-Well Pump, fitted with reversible handle and improved compound handle rest. While the Pump is designed for deep wells, yet it can be used in cisterns or wells as deep as 150 feet. Furnished with either 2½- or 3 x 10-inch cylinders at the following prices:

|                                |        |
|--------------------------------|--------|
| With iron cylinder.....        | \$9 00 |
| With brass-lined cylinder..... | 10 75  |
| With brass-body cylinder.....  | 12 50  |

If wanted complete with 1¼-inch galvanized pipe and ¾-inch galvanized steel rod, add to above prices 25 cents per foot for depth of well.

### New Fountain Double Acting Force and Lift Pump

The New Fountain is the simplest and most efficient deep-well pump on the market. It has a double air-chamber which enables the pump to throw an absolutely solid stream, just like a hydrant. Has smooth bore cylinder and brass valve seat; made to face the front or side by simply loosening set screw at top. It will go in hole as small as 4¾ inches. The upper cylinder is brass lined. Anti-freezing.

Furnished with either 2½- or 3 x 12-inch cylinders at the following prices:

|                                |         |
|--------------------------------|---------|
| With brass-lined cylinder..... | \$17 50 |
| With brass body cylinder.....  | 18 50   |

If wanted complete with 1¼-inch galvanized pipe and ¾-inch galvanized steel rod, add to above prices 25 cents per foot for depth of well.

If Three-Way is desired, add \$3.50 to above prices. If Wind Mill Top is desired, add \$2.50 to above prices.



New Fountain

## Wood Pumps

| Size      | Length | Cylinder  | Unlined | Porcelain Lined |
|-----------|--------|-----------|---------|-----------------|
| 6 x 6 in. | 6 ft.  | 3 1/2 in. | \$8 50  | \$10 50         |
| 6 x 6 in. | 7 ft.  | 3 1/2 in. | 9 25    | 11 25           |
| 6 x 6 in. | 8 ft.  | 3 1/2 in. | 10 00   | 12 00           |
| 6 x 6 in. | 10 ft. | 3 1/2 in. | 12 00   | 14 00           |

Tubing for above pumps, 4 x 4 in., in 8-, 10-, and 12-foot lengths, 32 cts. per ft.

Couplings with bands for 4 x 4-in. tubing, 90 cts. ea.

In ordering give depth from top of platform to bottom of well. Prices on other sizes Wood Pumps quoted on request.

## Giant Low-Down Double-Acting Force Pump

Has brass valve seats and metal valves faced with rubber. 5x5-inch cylinder. Capacity 2,000 gallons per hour

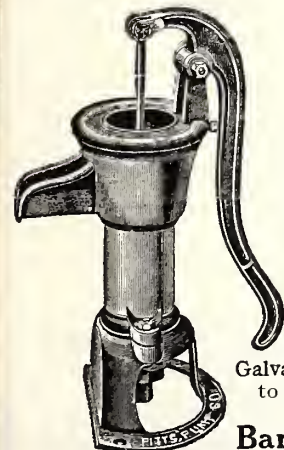
This is a fine Pump for filling thresher tanks, washing out boilers, irrigation purposes, pumping water from trenches, shallow wells, cellars, barnyards, etc. It is very compact and strong for its size and weight and has large and direct waterways and ample valve capacity. It is easy of operation, the Pump throwing an abundance of water with the least pumping labor. The cog gear head is reversible and can be used on either end of Pump.

Wood Pump

No. R479. With hose nipple, hose-band, and strainer, \$13.

## Suction Hose

|   | Per foot |
|---|----------|
| "Granger Brand." Wire lined, in 15 and 20-foot lengths. |          |
| 2-inch.....   | \$0 57   |
| "Royal Brand." Wire lined, in 15 and 20-foot lengths.   |          |
| 2-inch.....   | 83       |
| "Tiger Brand." Hard rubber. 3/4-inch.....               | 30       |
| 1-inch.....   | 35       |
| 1 1/4-inch.....   | 53       |



## Pitcher Spout Pump

Has smooth-bore cylinder and brass valve seat, with revolving top, allowing lever to be placed at any desired position, and may be used successfully in cisterns or wells as deep as 25 feet.

### PRICES

No. 2. 3-inch cylinder, polished iron, \$3; brass lined, \$5.50, by Parcel Post, 40 cts. extra.

No. 3. 3 1/2-inch cylinder, polished iron, \$3.50; brass lined, \$6, by Parcel Post, 40 cts. extra.

Galvanized Pipe for above. 1 1/4-inch, cut to length and threaded, 21 cts. per ft.

## Bantam Sink Force Pump

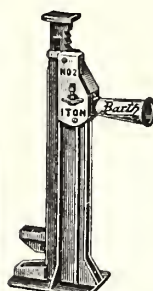
Not illustrated

Has 3-inch seamless brass cylinder; brass-covered plunger-rod; brass packing-gland; brass hose spigot.

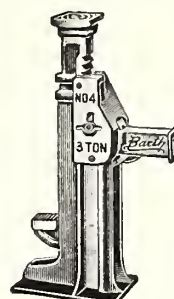
Also has back outlet for forcing water to tank in attic. The large amount of water that this Pump will discharge will soon convince anyone that it is not a plaything, but an up-to-date service Pump in every respect.

Weight, 18 lbs. Occupying space 4 1/2 x 8 in. Height 18 in. Adapted to cisterns and wells as deep as 25 feet. \$9.25.

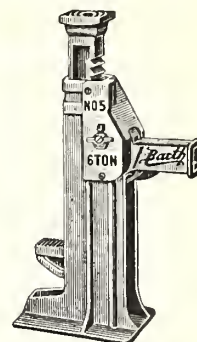
## Barth Jacks



1-ton



3-ton



6-ton

Barth Jacks are favorably known the country over. They are well made of the best material with a view to securing the greatest strength and durability with the lightest weight.

The No. 2 1-ton Jack is intended for wagons and automobiles; the No. 4 3-ton Jack for trucks, threshers, and hay balers; the No. 5 6-ton Jack is intended for traction engines and other heavy work.

|        | Capacity | Height in. | Rise in. |        | Postpaid |
|--------|----------|------------|----------|--------|----------|
| No. 2. | 1-ton    | 14 1/2     | 10.....  | \$4 00 | \$4 30   |
| No. 4. | 3-ton    | 14         | 8.....   | 8 00   | 8 45     |
| No. 5. | 6-ton    | 18         | 11.....  | 11 50  | 12 00    |

## Fairbanks Portable Platform Scale

Only weight determines actual quantity. Don't depend on any other method of measurement for no other method is absolutely certain.

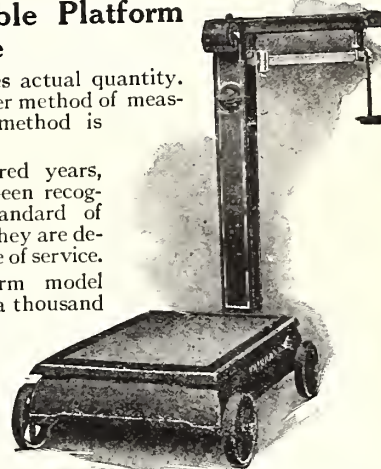
For nearly one hundred years, Fairbanks Scales have been recognized as the world's standard of accuracy in weighing. They are dependable through a lifetime of service.

The Portable Platform model shown here has literally a thousand uses. It is known the country over as a money-saver and profit-maker in factories, warehouses, stores, on farms, and in hundreds of businesses.

The arrow-tip beam, of heavy polished brass and with clear cut graduation and large plain figures, the easy-reading poise, and many features have been so popular that production on this model is now so large that extremely low prices are made possible.

This Scale meets fully all specifications and requirements of State and National regulations on weights and measures. It is accepted everywhere as the standard.

No. 1128. Capacity 500 lbs., platform 16 in. x 25 in. ... \$19 50  
No. 1124. Capacity 1,000 lbs., platform 18 in. x 27 in. ... 22 50



## Canvas Slat Menders

For repairing broken Binder Canvas Slats. Slats can be repaired in 2 minutes by using Instant Slat Repairs. Quickly applied, permanent repair. Save time and money.



1 box, six Menders 35 cts., postpaid 40 cts.; 2 boxes, twelve Menders 60 cts., postpaid 65 cts.

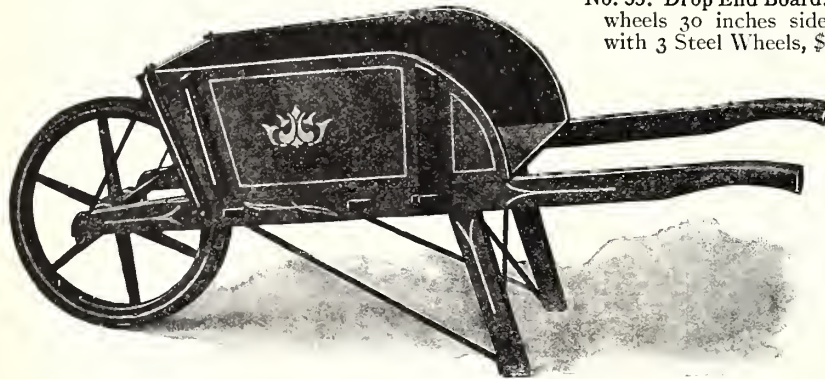
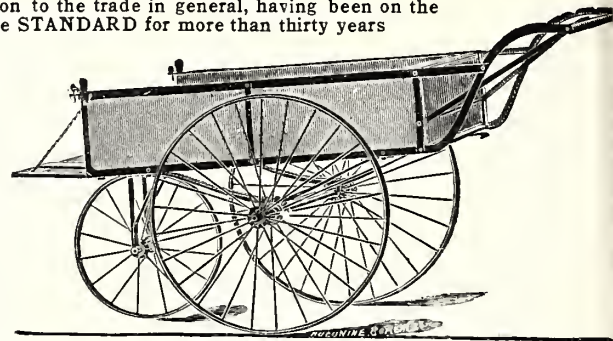
## The Monitor Hand Cart

**Uses.** The uses to which these Carts are adapted are unlimited. They will pay for themselves in a short time in any manufacturing or mercantile business, and are indispensable to grocers, bakers, laundries, farmers, dairymen, gardeners, and for general family use. Where the Monitor has once been used there is no more use for the wheelbarrow or any other cart.

**Construction.** The frames of bodies are made of special carbon steel, riveted together with best Norway rivets. It is light and very strong, with durable first quality basswood box inside, and has fine oil tempered half elliptical springs (two- and three-leaf as required), and the wheels nicely painted.

**No. 333. Drop End Board.** Size inside of body, 39 x 24 inches; depth 9½ inches; wheels 26 inches side, 14 inches front. Capacity, 350 pounds. Price, with 3 Steel Wheels, \$20; with Wood Wheels, \$24.

Needs no introduction to the trade in general, having been on the market and the STANDARD for more than thirty years



**No. 5.** A high-grade, well-made Barrow at a low price. Will give good service for a long time. Body, 26 in. long, 19 in. wide front, 23 in. wide rear. Sideboards 12 in. high. Handles 56 in. long. Steel wheel. Weight, 50 lbs. Price, \$5.75.

**No. 53. Drop End Board.** Size inside of body, 40 x 26 inches; depth, 9½ inches; wheels 30 inches side, 18 inches front. Capacity, 400 pounds. Price, with 3 Steel Wheels, \$21.50; with Wood Wheels, \$25.

## Pittsburgh Garden Barrows

These Barrows are made of thoroughly seasoned wood, have double frames, firmly bolted together and iron braced. They are neatly finished and very strong.

**No. 1. Large.** Body 30 x 24 in.; sideboards 12 x 30 in.; wood wheel 1¾ x 22 in. \$9.

**No. 2. Medium.** Body 28 x 20 in.; sideboards 12 x 28 in.; wood wheel 1¾ x 20 in. \$7.50.

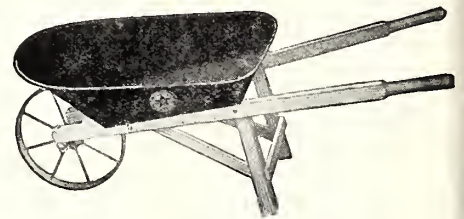
**No. 3. Small.** Body 26 x 19 in.; sideboards 12 x 28 in.; wood wheel 1¾ x 20 in. \$7.25.

**No. 4. Boys'.** Body 22 x 18 in.; sideboards 9 x 18 in.; steel wheel 1½ x 15½ in. \$6.

## Green Star Home Barrow

SUBSTANTIALLY BUILT FOR USE AROUND HOME

Tray made of No. 18 gauge steel, riveted and vertically reinforced in four places, and has round nose which permits load to be carried over the wheel. Capacity, 3 cubic feet, heaped. Wheel, 1½-inch tire, 8 spokes. All wood parts are made from well-seasoned, selected hardwood. Tray painted black; frame red. \$5.25.



## Steel-Tray Barrows

Our Steel-Tray or Contractors' Barrows are built especially to meet the demand of contractors and builders.

**Tray**—Pressed cold from one piece blue annealed steel, corners not drawn thin from hot drawing. Whole inside of bowl perfectly smooth. Top edge turned over ¼-inch round iron, making tray stiff and rigid.

**Frame**—Hardwood handles with flat steel brace around front of wheel for strength and front dumping. Angle steel legs well braced.

**Wheel**—Steel. 15½-inch diameter. 1½ x ⅝ tire. Eight ⅝-in. oval spokes.

**No. 30B.** Length 32 in.; width 25 in.; depth 8 in. at front. Capacity 3 cu. ft. Weight, 60 lbs. \$8.50.

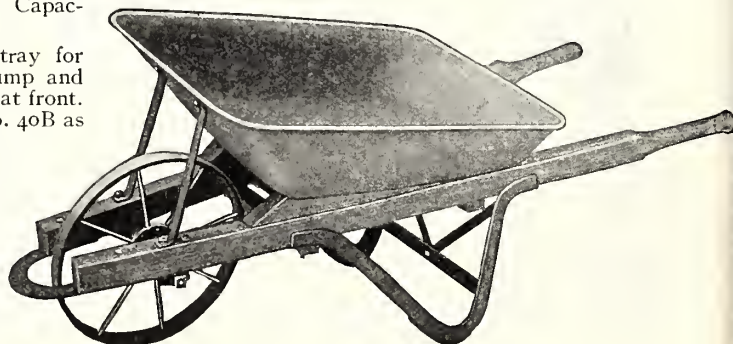
**No. 40B.** Length 32 in.; width 25 in.; depth 9½ in. at front. Capacity 4 cu. ft. Weight, 65 lbs. \$8.75.

**No. 15A.** (Not illustrated.) Made with round front tray for cement or construction work so that material will dump and clean easily. Length 34 in.; width 24 in.; depth 16½ in. at front. Wheel and frame construction same as No. 30B and No. 40B as shown in illustration. Capacity 4 cu. ft. Weight, 65 lbs. \$7.50.

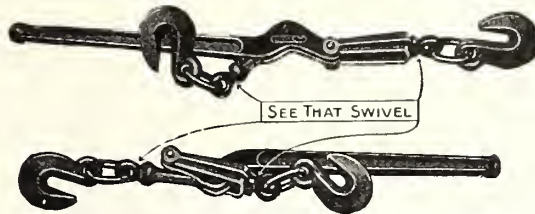
**No. 21.** (Not illustrated.) A light steel-tray cement and dirt Barrow. Wood legs and braces. Steel wheel of 16-in. diameter. A very popular low-priced light Barrow. \$5.50.

**Concrete Tamper.** Square, cast-iron base, 8 x 8 in., ⅞ in. thick. Hardwood handle. Weight, 14 lbs. \$1.50.

See page 84 for prices and descriptions of Concrete Mixers



### Stacy Swivel Load Binders

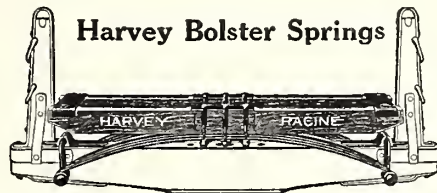


One of the handiest tools on the market for binding loads of logs, lumber, pipe, boilers, poles, or any load that requires binding with a chain. Does away with all the inconveniences and shortcomings of the old-fashioned dangerous boom-pole and soon pays for itself in saved time and labor. Binds loads firmly, quickly and easily. No longer need you risk your life with old-fashioned boom-poles, no longer need you experience the trouble of having your load slip off, because not securely bound. Simply slip grab hooks over links of the chain, give lever a downward pull and the load is bound to stay.

It also makes an excellent wire stretcher. It is just the thing for hauling heavy loads in hilly country where one finds it necessary to lock the wheels going down. With it, the wheels can be released on reaching the bottom without backing up the heavy load to slacken the chain—just stop, anywhere—raise the lever and the wheel is released.

Made of best material. Fits any ordinary log-chain. The swivel joints permit hooks to turn with twist of chain and prevents chain from breaking.

Regular size. Weight, 7 lbs. \$2.25 each; postpaid \$2.40.  
Jumbo size. Weight, 10 lbs. \$3.25 each; postpaid \$3.45.



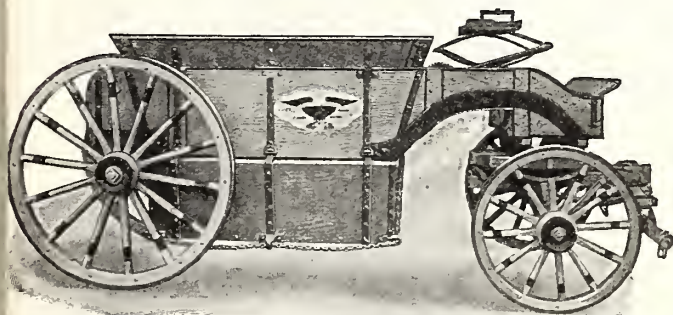
### Harvey Bolster Springs

They will change your farm wagon into a spring wagon. They relieve the jars, jolts, strains and noise of a springless wagon. They make it run easier, smoother, and quieter.

Price per set—Always give capacity and length wanted

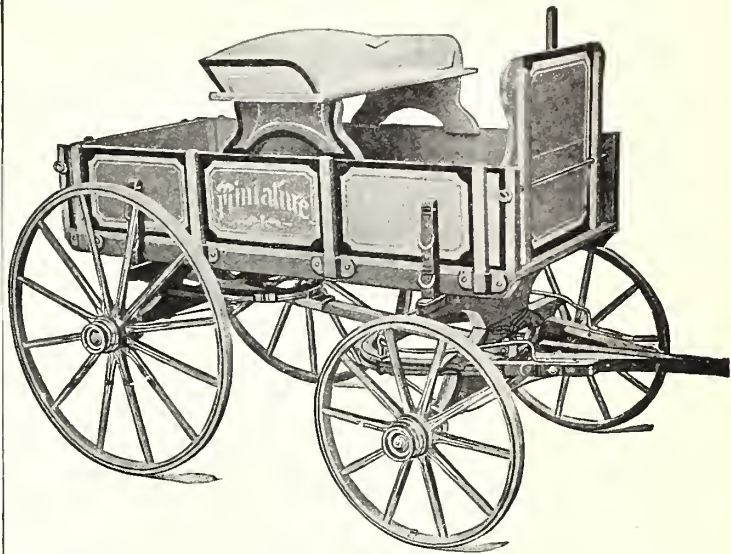
| Capacity<br>lbs. | For 36-<br>or 38-in.<br>bolster | For 40-<br>or 42-in.<br>bolster | Capacity<br>lbs. | For 36-<br>or 38-in.<br>bolster | For 40-<br>or 42-in.<br>bolster |
|------------------|---------------------------------|---------------------------------|------------------|---------------------------------|---------------------------------|
| 1,000.....       | \$8 50                          | \$9 50                          | 4,000.....       | \$16 00                         | \$18 00                         |
| 1,500.....       | 9 00                            | 10 00                           | 5,000.....       | 18 00                           | 20 00                           |
| 2,000.....       | 11 00                           | 12 00                           | 6,000.....       | 20 00                           | 22 00                           |
| 2,500.....       | 12 00                           | 13 00                           | 8,000.....       | 24 00                           | 26 00                           |
| 3,000.....       | 14 00                           | 15 00                           | 10,000.....      | 28 00                           | 30 00                           |

### The Eagle Dump Wagon



The Eagle Dump Wagon

### Miniature Farm Wagon



The most perfect reproduction in miniature of the full-sized farm wagon on the market. Not a toy wagon. We can assure you it is the strongest and handsomest Miniature Wagon on the market. The dimensions are as follows:

Body, 18x36 inches, with oak frame. The sides and ends can be taken off, leaving bed with stakes, or the entire body may be removed, leaving gear in shape to be used in numberless ways. The gearing is made exactly like a farm wagon, having bent hound and adjustable reach.

Has seat, and a hand tongue. Can furnish shafts for dog or goat. Price with tongue, \$10.50; shafts extra \$1.25.

### Columbus Steel Drag Scraper

Absolutely seamless throughout



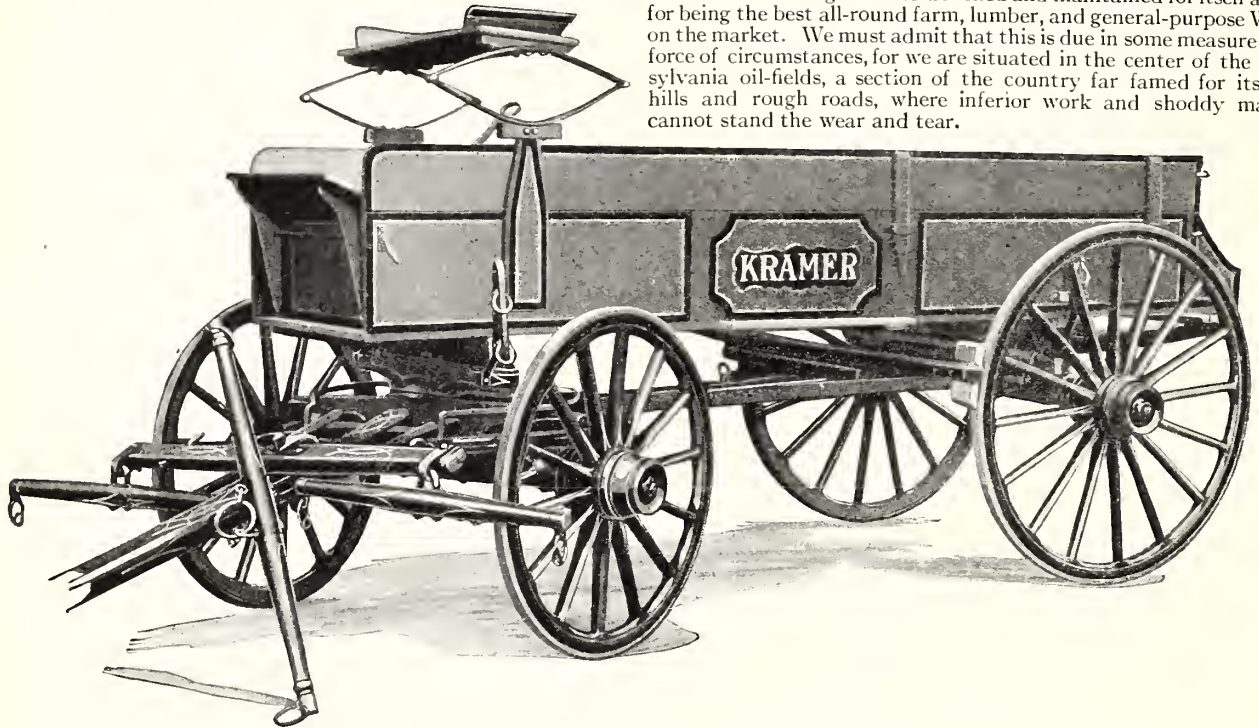
The most economical tool made for making and mending roads. The bails are of steel and of improved pattern, with strong and perfectly working swivels.

- No. 1. Carries 7 feet of earth. Used for long haul or down grade. Size of bowl: Top of back to cutting edge, 34 inches; width, 33 inches; depth 10 in.; weight, 105 pounds. With runners, \$9.25.  
No. 2. Carries 5 feet of earth. For all ordinary grading, farm, road or township work. Size of bowl: Top of back to cutting edge, 31½ inches; width, 29½ inches; depth, 9½ inches; weight 97 pounds. With runners, \$8.75.

The most widely used bottom Dump Wagon in the United States. It has made a place for itself during the last 25 years that is seldom attained by a like product. It is the favorite of the large user of Dumpers who places his orders in carload lots, and it is just as popular with the user who has but one team, for the wagon is well made, of high-grade material and workmanship, and is equipped with the most up-to-date and practical devices and appliances that go to make a usable and serviceable Dump Wagon. Its draft is easy and its service is long. Ask for catalogue and prices.

## Kramer Wagons

The Kramer Wagon has established and maintained for itself a name for being the best all-round farm, lumber, and general-purpose Wagon on the market. We must admit that this is due in some measure to the force of circumstances, for we are situated in the center of the Pennsylvania oil-fields, a section of the country far famed for its steep hills and rough roads, where inferior work and shoddy material cannot stand the wear and tear.

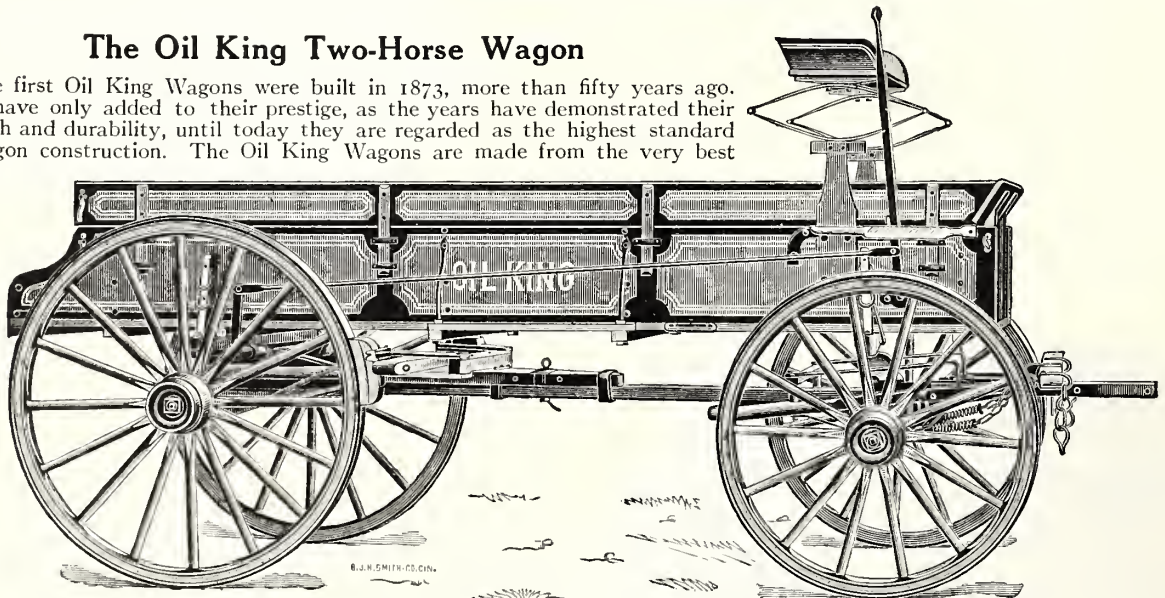


Kramer Wagons are furnished in either Wood Axle Cast Skein, Wood Axle Steel Skein, or the famous Tubular Steel Axle. They are also furnished either with Drop Tongue or Coach-Pole, Gear or Swing Brake and double Hound or Chaser Reach. In one-horse style they are furnished with  $2\frac{1}{2}$ -,  $2\frac{3}{4}$ -, or 3-inch skein; in two-horse sizes,  $2\frac{3}{4}$ -, 3-,  $3\frac{1}{4}$ -,  $3\frac{1}{2}$ -,  $3\frac{3}{4}$ -, and 4-inch Skeins. Special catalogue and prices furnished on request. In asking for prices please use the above specifications.

## Oil King Wagons

### The Oil King Two-Horse Wagon

The first Oil King Wagons were built in 1873, more than fifty years ago. They have only added to their prestige, as the years have demonstrated their strength and durability, until today they are regarded as the highest standard in Wagon construction. The Oil King Wagons are made from the very best



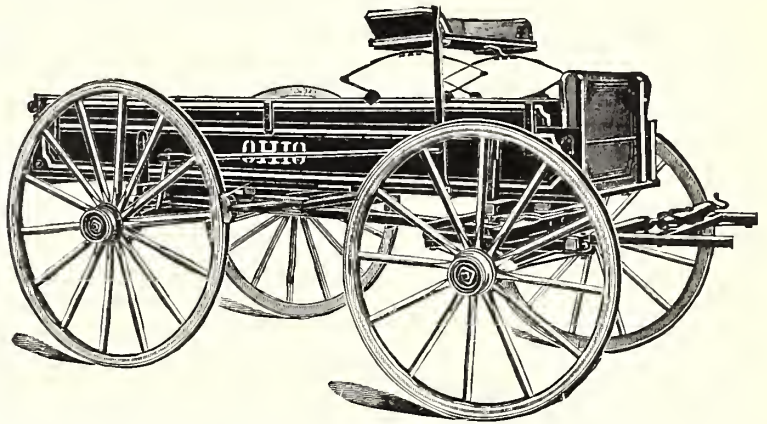
material obtainable, are well ironed and specially adapted for general farm purposes and heavy hauling. We furnish them with any width of tire desired, with steel or cast skeins, stiff tongue and tongue chains, or drop tongue and neckyoke. Write for special catalogue and prices, specifying style and size of wagon in which you are interested.

## The Ohio One-Horse Wagon

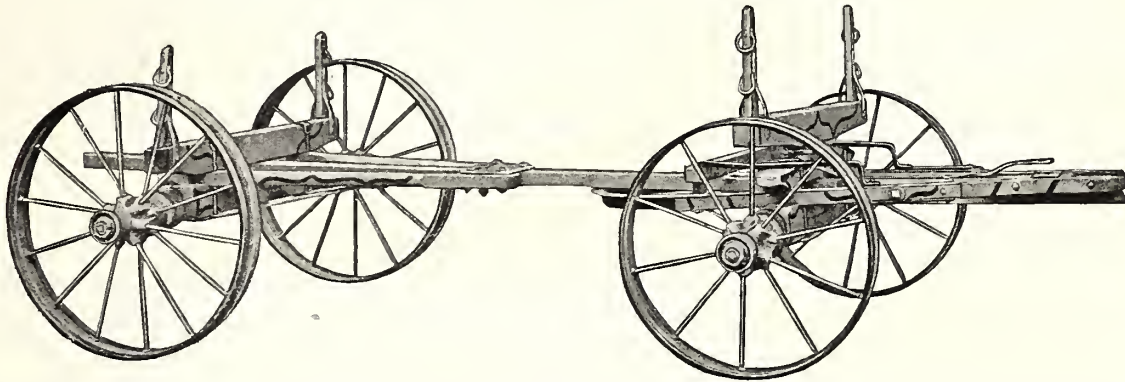
This Wagon is designed to meet the demand for a moderate-priced Wagon for light work.

Nothing but the best material is used in its construction: Hickory axles, second-growth oak and hickory spokes, white oak reaches, with best yellow poplar in the boxes.

Dimensions of lower bed: Depth, 10 inches; length inside measure, 8½ feet; width between standards, 38 inches; top box, 4 inches high; wheels, regular height, 3 feet 4 inches front, 3 feet 8 inches rear; tire, 1⅜ x ⅜ inches. Price, with 2⅜ x 7-inch cast skein, swing brake, bed with spring seat and shafts \$78. Special catalogue on request.



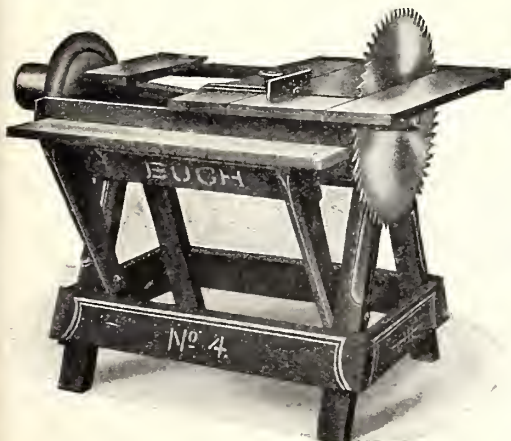
## The Improved Bryson Farm Truck



The Improved Bryson is a "lifetime" Farm Truck carefully made of the best material—it is strong, convenient, and handy in every way. Thousands are in use. The Bryson has ample strength for its full 4,000-pound rated capacity. Axles are hickory fitted with 3¼ x 10-inch cast skeins, standard pattern. Gear parts are clipped, not bolted. Trussed axles. Approved farm wagon construction throughout, including round-angle steel front hound reinforced with wood and strongly braced including ⅝-inch square steel circle braces over sand bolster to sway bar. Standards 10 inches high, mortised into bolster. All gear parts, with the exception of the axles, are made of select, thoroughly seasoned oak. All gear parts are hand painted with best quality red lead ground in oil, neatly striped and varnished. Steel wheels are "Electric" standard pattern with grooved tires and staggered spokes. Track 5 feet, 2 inches, center to center of tires, with bolsters 42 inches wide between standards. Price, with 28-inch front wheels, 34-inch rear wheels, 4 x ⅜-inch grooved tire, doubletrees, neckyoke and gear brake, \$75. (Brake and Doubletrees not shown in illustration.)

### Steel Wheels

We can furnish steel wheels to fit any farm wagon or farm truck. Write for prices specifying size of skein and height of wheels.



## No. 4 Pony Wood Saw

### Showing Ripping Table Attachment

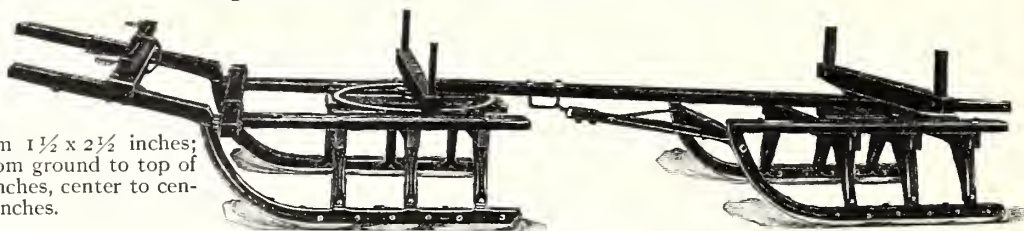
This saw is especially built for high power. Suitable for 3 to 6-horse power engine. With 18-inch blade it will cut round wood 8 inches thick. Frame will admit 20-inch blade. Mandrel is 3 feet 5 inches long, 1⅝-inch diameter, fitted for blades with 1⅝-inch hole. Balance wheel is 12-inch diameter, weighing 30 lbs. Boxes 3½ inches long; pulley, 5-inch face by 4½-inch diameter. Table securely hinged to frame. Weight, 110 lbs. Price, with 18-in. blade, \$18.75. Ripping Table, as shown in illustration, \$4.50 extra.

Catalogue and prices of larger sizes on request

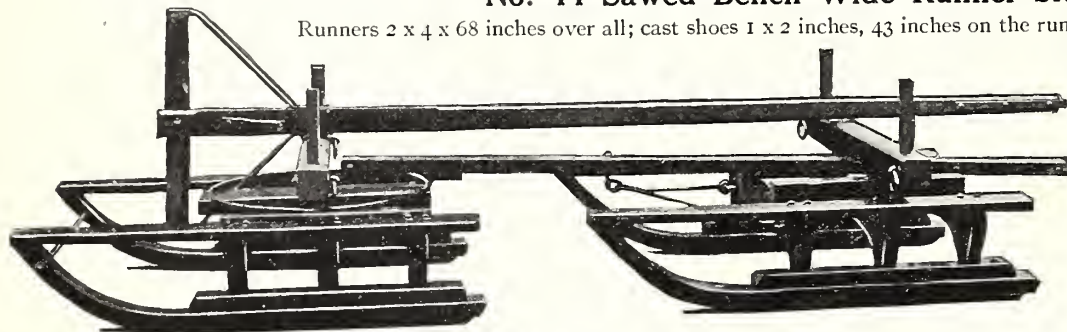
Our line of Concrete Mixers and Wheelbarrows is for farm use unsurpassed by any on the market. See page 84 for Concrete Mixers and page 146 for Wheelbarrows.

**No. 2. Snow King—One-Horse Three-Knee Bob-Sled**

Full iron circle; straight heel shaft with combination shift bar for either center or side draft; runners  $1\frac{1}{4} \times 2$  inches; cast shoe 1 inch on the face, 33 inches on the run; beam  $1\frac{1}{2} \times 2\frac{1}{2}$  inches; raves 1 x 6 inches; height from ground to top of bolster 21 inches; track 37 inches, center to center, bolsters either 38 or 42 inches.

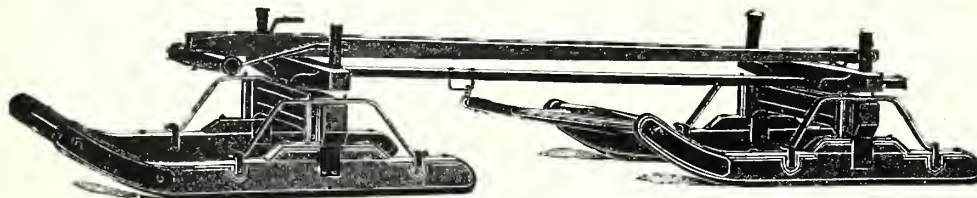
**No. 44 Sawed Bench Wide Runner Sled**

Runners  $2 \times 4 \times 68$  inches over all; cast shoes 1 x 2 inches, 43 inches on the run, in center of runner with steel strips on each side; sawed beams  $2\frac{1}{4} \times 7\frac{1}{2}$  inches; raves  $1\frac{1}{4} \times 6$  inches; full steel circle; track 37 inches center to center; bolsters  $4 \times 5 \times 50$  inches, 38 or 42 inches between standards. Furnished with regular roller coupling or with  $\frac{5}{8}$  inch steel bail connection to front bench of rear bob.

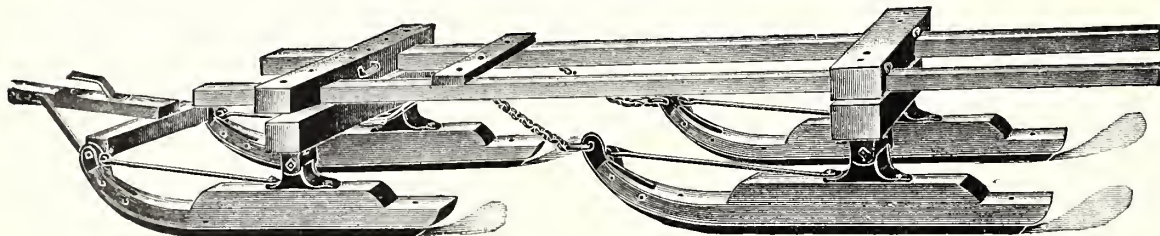
**No. 34. Mandt Patent Steel Knee, Oscillating Bob-Sled with Hounds and Swivel Reach**

Runners  $2 \times 4$  inches; cast shoe  $1\frac{3}{4}$  inches on the face, 40 inches on the run; beams and bolsters  $3\frac{1}{2} \times 4\frac{1}{2}$  inches; track 37 inches from center to center; bolsters 38 or 42 inches.

Prices will be quoted on request



Runners  $2\frac{1}{2} \times 5$  inches; cast shoes  $2\frac{1}{2}$  inches on the face, 54 inches on the run; beams  $4\frac{1}{2} \times 7\frac{1}{2}$  inches; bolsters  $3\frac{1}{2} \times 4\frac{1}{2}$  inches; height of sled from ground to top of bolster 22 inches; track 37 inches from center to center.

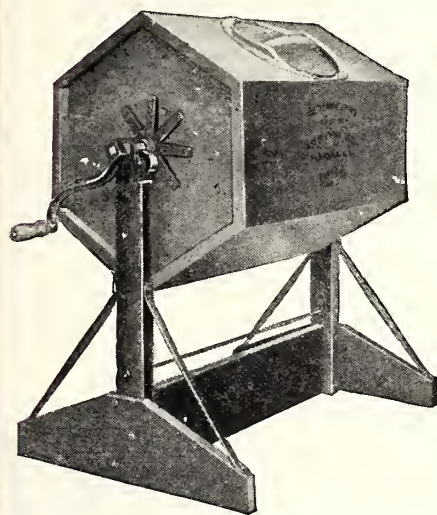
**No. 18 Snow King Bob-Sled, Maine Pattern****Nos. 30 and 31 Oscillating Bob-Sled**

Runners  $2 \times 4$  inches; cast shoe full width of runner 4 feet long with flange 1 inch deep in center; bunks and bolsters  $4 \times 5$  inches; track 38 inches from center to center, supplied with either single or double reach; bolsters 38 or 42 inches.

No. 31 is same as No. 30, excepting runners are 5 inches wide and bunks and bolsters are  $4 \times 6$  inches and the knuckles are heavier.

PRICES WILL BE QUOTED ON REQUEST

## The Fenner Six-Sided Revolving Churn and Butter Worker



CHURNS,  
WASHES,  
SALTS,  
AND  
WORKS  
THE  
BUTTER  
IN  
THE  
CHURN

This Churn has been manufactured for over fifty-seven years, and is in use in practically every state in the Union, also in Canada, Mexico, and Alaska. It is made from 1-inch boards of No. 1 yellow poplar. Each side is fastened to the other by means of long screws and the sides are mortised to the ends and held securely together by screws. Because of the manner of its construction, this Churn **cannot dry out and fall to pieces** when not in use. A large rubber ring, placed in the groove in the edge of the cover, seals the Churn, thereby preventing the cream from leaking out. These Churns are especially adapted to warm climates, on account of being able to finish the product without exposure to the atmosphere. There are no **rolls or paddles** in this Churn. Three baffle-boards, about 2 inches wide, extend practically the entire length of the Churn, and are fastened on the three alternate sides, edgewise to the center. As the Churn is revolved, the butter falls on these little baffle-boards, divides, passes on, falls and divides again, perfectly washing or working your butter. Remember the **churning, washing, salting, and working** are all done in the Churn. Booklet with each Churn explains the **Fenner Method of Butter-Making**. Pulley for power will be attached when so ordered. All sizes, except the two smallest, have roller bearings at both ends.

Prices quoted on request on larger sizes. We are in position to furnish you **any** size you desire.

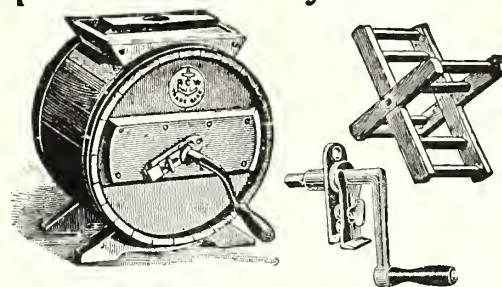
| No. | Total capacity<br>gallons | Will churn                         | Price  |
|-----|---------------------------|------------------------------------|--------|
| AI  | 6                         | From 2 quarts to 3 gallons.....    | \$9 00 |
| BI  | 9                         | From 3 quarts to 4½ gallons.....   | 12 00  |
| 1   | 12                        | From 3 quarts to 6 gallons.....    | 16 00  |
| 2   | 20                        | From 1 gallon to 10 gallons.....   | 18 00  |
| 3   | 24                        | From 1 gallon to 12 gallons.....   | 20 00  |
| 4   | 30                        | From 1½ gallons to 15 gallons..... | 24 00  |
| 5   | 40                        | From 2 gallons to 20 gallons.....  | 28 00  |
| 6   | 50                        | From 2½ gallons to 25 gallons..... | 32 00  |

Churns with Power Pulley attached, extra \$2.50.

## Dandelion Brand Butter Color

Have your butter uniform in color in June and in January. Give butter the "high price" shade uniformly—the year round. Practically every large creamery in the country uses Dandelion Brand Butter Color, which proves it is kept up to the highest standard of quality. Small Size 35 cts., Medium Size 65 cts., Large Size \$1; postpaid, 10 cts. extra.

## Improved Cedar Cylinder Churn



Our Improved White Cedar Cylinder Churn has a double dasher, and the crank is locked to the churn with a clamp and thumb screw, which prevents leakage. Lock cannot break. The top is large, and dasher easily removed. Hoops are of galvanized iron and will not rust. The best Churn in use. All castings are heavily tinned.

|        |                |        |
|--------|----------------|--------|
| No. 1. | 3-gallon.....  | \$5 00 |
| No. 2. | 4-gallon.....  | 6 00   |
| No. 3. | 7-gallon.....  | 7 00   |
| No. 4. | 10-gallon..... | 8 00   |

## White Cedar Staff Churns

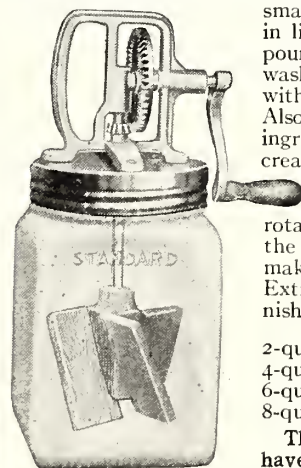
Our popular Staff and Dash Churns are made of selected, seasoned Virginia white cedar, and are bound with electric welded galvanized wire hoops. Fitted with handsome covers and hardwood staffs and dashers. These White Cedar Churns are carefully made, sweet, hygienic, and very light to handle.

|               |                 |        |
|---------------|-----------------|--------|
| 16-in. Churns | 3 gallons.....  | \$1 75 |
| 18-in. Churns | 4 gallons.....  | 2 00   |
| 20-in. Churns | 5 gallons.....  | 2 25   |
| 22-in. Churns | 6 gallons.....  | 2 50   |
| 24-in. Churns | 8 gallons.....  | 3 00   |
| 26-in. Churns | 10 gallons..... | 3 50   |



## Standard Glass Churns

Latest Improved Butter Churn. You can make butter for home use in from 8 to 10 minutes. Easy to clean. All except the small size have perforated draining cap in lid which permits buttermilk to be poured out and water poured in for washing butter. Churn is clear glass with rounded corners and large mouth. Also used extensively for mixing cake ingredients, beating eggs, whipping cream, and mixing salad dressing. The scientific construction of the 4-blade hardwood dasher, giving a rotary motion to the cream against the square sides of the churn, is what makes it the best churn ever made. Extra jars for Glass Churns can be furnished.



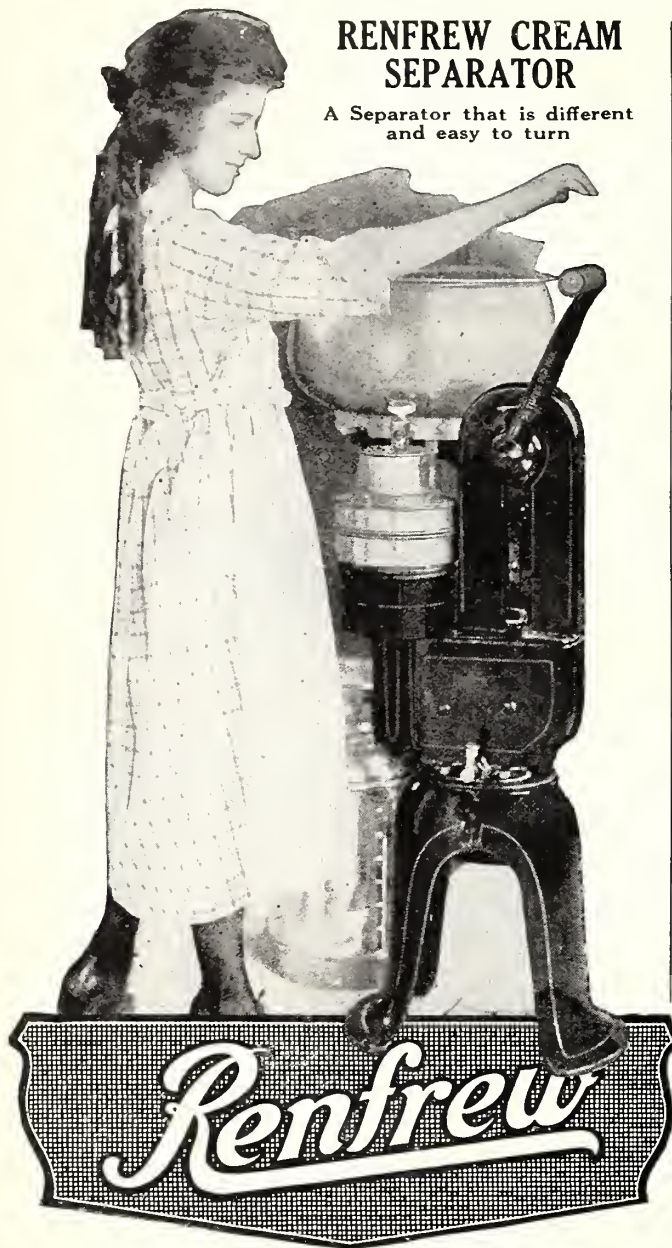
|              | Postpaid      |
|--------------|---------------|
| 2-quart..... | \$1 75 \$1 95 |
| 4-quart..... | 2 75 3 00     |
| 6-quart..... | 3 25 3 50     |
| 8-quart..... | 4 00 4 30     |

Thousands of these glass churns have been sold in the last few years and have the approval of every house-

wife who has used them.

## RENREW CREAM SEPARATOR

A Separator that is different and easy to turn



The Renfrew Cream Separator has a reputation as the easiest running Separator on the market; in fact, the weight of the handle will start the gearing. This is because of the simplified gearing, chain-drive, and self-oiling system which reduces friction and wear and tear on all moving parts.

The Renfrew Cream Separator has achieved remarkable success in the eight years it has been on the market. This is due entirely to the splendid work it does and the unqualified endorsement of the man who owns one and tells his neighbors about it. In other words, satisfied customers are our greatest asset, and the more we sell the more influence the Renfrew exerts in the trade.

This success is due largely to features of the Renfrew which are exclusive—not possessed by any other Separator. Chief among these are the curved wing bowl, the style of neck bearing, the absolute self-oiling system, interchangeable capacity, and the clutch attached to the spindle and in the base of the machine.

To these exclusive features add the high crank, low supply tank, chain drive and steel discs, and remember the Renfrew has the advantage of all the good things found in other makes, and several practical ideas that are to be found only in the Renfrew.

The Renfrew is built from start to finish with such careful attention to details that we feel it is as nearly mechanically perfect as human ingenuity can make it. All these things combine to make it durable, trouble-proof and easy to run.

But after all the most important thing about a Cream Separator is how well it separates the cream from the whole milk. In this respect the Renfrew has no superior, as any dairyman or farmer who owns one will tell you.

The Renfrew gets 99.99 per cent of the butter-fat. It will put your dairy on a profit-paying basis and stop all butter-fat loss.

| No.     | Capacity<br>per hour | Hand<br>Operated | With<br>Electric Motor |
|---------|----------------------|------------------|------------------------|
| 2.....  | 350 lbs.             | \$80 00          | \$150 00               |
| 4.....  | 450 lbs.             | 90 00            | 160 00                 |
| 6.....  | 650 lbs.             | 100 00           | 170 00                 |
| 8.....  | 800 lbs.             | 110 00           | 180 00                 |
| 10..... | 1,000 lbs.           | 120 00           | 190 00                 |

When ordering with electric motor, give voltage, direct or alternating current, and, if alternating, the cycles. Can also be equipped to be operated with gasoline engine. **Prices on request.** Before you buy a cream separator, call and see the Renfrew or send for descriptive catalogue

## Star Cream Separator

Easiest, Cleanest, Simplest Cream Separator of its Kind on the Market. Reversible Strainer, Cover and Aerator—Inclined Bottom.

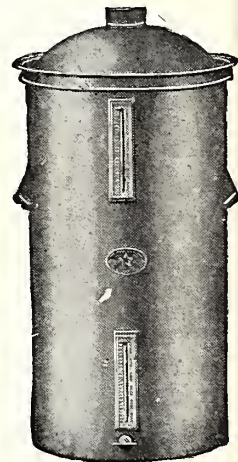
Made of the best material to be found on the market, with the most perfectly constructed bottom, allowing every particle of cream and milk to be drawn, without disturbing the can, thereby preventing all liability of remixing cream and milk after being separated.

**DIRECTIONS.** Place the Separator on a bench or box in any convenient place, with the front projecting over a little so that a pail can be placed under the faucet, without disturbing the can when drawing off the milk and cream.

Place cover, inside up, on Separator and pour your milk through the strainer into the Separator. In warm weather dilute with same amount of water that you have of milk; in cold weather, or if water is more than ordinarily cold, a less amount has been found to be sufficient; then replace cover after changing strainer to outside of cover and allow to stand.

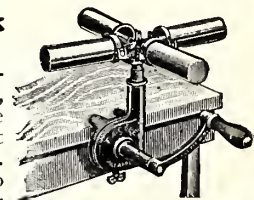
### Price List—With Cover

| No.                 | Capacity<br>Quarts |        |
|---------------------|--------------------|--------|
| 0. 1 cow.....       | 24.....            | \$3 75 |
| 1. 1 to 2 cows..... | 48.....            | 4 75   |
| 2. 3 to 4 cows..... | 68.....            | 5 25   |
| 3. 6 to 8 cows..... | 118.....           | 6 25   |



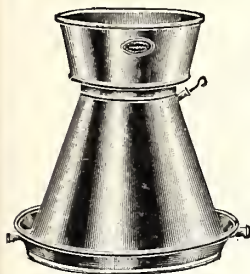
## The Facile Jr. Babcock Milk Tester

An exceedingly simple, light, compact, and carefully designed apparatus, especially adapted to the use of the dairy, and also, on account of its light weight, to the traveling dairy inspector. The working parts consist of but two cut gears, namely, a steel spiral gear and steel spindle with worm thread, entirely enclosed in handsome cast iron case. It is fitted with deep seamless brass swinging pockets and malleable iron tinned head; absolutely safe. Hot water may be put in pockets to keep fat melted. Turns very easily without vibration or jar, and can be readily attached for operation to any table or bench. Complete with full set of glassware, consisting of test bottles, pipette, and acid measure, also test bottle brush and bottle of acid, with full directions for use.



|   |        |
|---|--------|
| 2-bottle Outfit, complete for milk.....           | \$8 50 |
| 2-bottle Outfit, complete for cream and milk..... | 9 50   |
| 4-bottle Outfit, complete for milk.....           | 9 75   |
| 4-bottle Outfit, complete for cream and milk..... | 10 75  |

## Improved Champion Milk Cooler



It is a perfect aerator, removing all flavors arising from excessive cabbage, turnip, or silo rations.

It is a thorough cooler, reducing the temperature of the milk instantly nearly to the temperature of the cooling medium.

It is low down, combining greatest cooling surface with least height.

It is as simple in construction and easily cleaned as a pail—no joints or seams for the harboring of impurities and no crooked pipes to rust.

Its cost is small—compared to the saving effected it is nothing.

It saves time and labor in handling of milk for any purpose.

It is a complete deodorizer, removing the animal heat or cowy taste and all odors arising from the absorption by the milk of stable or other unpleasant gases.

It is equally well adapted to the use of any cooling medium, either running water, ice water, or if a very low temperature is not required, ordinary well or spring water.

**Fast Cooling Important.** It is but the work of a moment to fill the Improved Champion with cold or ice water, or attach a 1/2-inch stream of flowing spring water. If the agitator is used it keeps the medium circulating near the cooling surface. The milk flows over the cooling surface through machine-punched holes scientifically calibrated so that milk film is even and cooling is sure and certain.

The following sizes of the Champion are gauged as nearly as possible to take care of the milk as fast as drawn from various sized dairies with the average number of milkers. Be sure to get one large enough, as best cooling results are obtained with low pressure of milk in the receiver.

### Prices Include Spring Pins for Attaching Strainer Cloth

| No.   | Capacity milk receiver | Size of dairy  | Takes care of | Price  |
|-------|------------------------|----------------|---------------|--------|
| No. 2 | 18 qts.                | 1 to 25 cows   | 3 milkers     | \$8 50 |
| No. 3 | 34 qts.                | 25 to 50 cows  | 5 milkers     | 10 00  |
| No. 4 | 52 qts.                | 50 to 100 cows | 8 milkers     | 12 50  |



## Thatcher Superior Quality Milk Bottles

"A bottle of milk is a bottle of health"



All bottles and capacity guaranteed to conform with state laws

Thatcher Quality Milk Bottles are made in different shapes, S, G, and H. We recommend the style S which shows deep cream line.

|               | Doz. | 1/2 gross | Gross  |
|---------------|------|-----------|--------|
| Quarts        | 10   | \$5 00    | \$9 00 |
| Pints         | 90   | 4 00      | 7 00   |
| Half-Pints    | 80   | 3 50      | 5 90   |
| Quarter-pints | 80   | 3 50      | 5 90   |

Five gross lots 50 cts. per gross, 10 gross lots 75 cts. per gross and 25 gross lots \$1 per gross, less than above prices.

**Name Plates \$2.50 for each size.** Plates free on orders for 25 gross of one size. Orders for lettered Bottles must be for one gross or more of each size. All lettered Bottles f.o.b. factory, with freight allowance of 50 cts. per gross. Plain Bottles f.o.b. cars, Pittsburgh.

## Improved Decimal Milk Scale

This spring balance is intended especially for use in connection with the Babcock Test for keeping records of the quantity of milk from individual cows, together with the per cent of fat, so as to calculate the butter-yield. The Scale is provided with a loose pointer which, by means of a thumb-screw, may be set anywhere on the dial to offset the weight of the milk pail, so this does not have to be deducted from the reading. The reading being in pounds and tenths of pounds makes the calculation very much simpler than when pounds and ounces are given, as on the ordinary Scale.

**30-lb. Scale.** Weighs by 1-20 lb., price, \$6.75; postpaid, \$6.90.

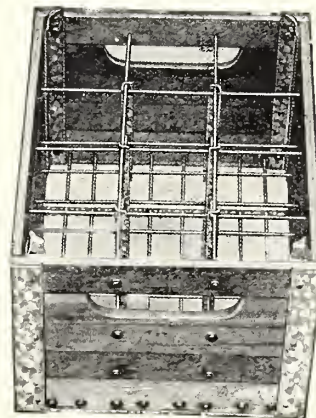
**60-lb. Scale.** Weighs by 1-10 or 1-20 lb., price, \$8.25; postpaid, \$8.40.

**120-lb. Scale.** Weighs by 1-10 or 1-20 lb., price, \$13; postpaid, \$13.15.

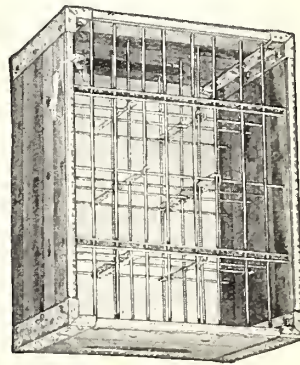
These same Scales can be furnished to weigh by ounces at the same prices.



## Armor-Klad Bottle Cases



Top View



Bottom View

Armo-Klad Cases are built so strong that even at the first glance you are impressed with their exceptionally fine construction. And year after year they will continue to merit your approval with consistent service. Armor-Klad Cases will stack with all standard Cases, and once you use them you will soon want to replace all your crates with Armor-Klads.

The top view shows the rigid construction, the lapping corners of heavily galvanized iron, and the angle-iron supports for the dividing wires. Not a nail or a screw is used in the manufacture of this tough crate. All the wires extend clear through the wood slats and the corner irons are riveted, inside to outside. The wide, roomy hand-holes make the Case easy and safe to handle. Every feature adds extra strength and long life to the Armor-Klad Bottle Case. One of the most important features of this Case is the construction of the bottom runners. The runner is dovetailed into the bottom slat and is further held in place by the corner irons.

|  |        |                  |        |
|--|--------|------------------|--------|
| 12-qt. case                              | \$2 30 | 20-half pt. case | \$2 30 |
| 20-pt. case                              | 2 30   | 30-half pt. case | 2 45   |
| 25 Cases or more, 15 cts. per Case less. |        |                  |        |

## Sealright Standard Bottle Caps

Made from the Famous Fulton Board



These Caps are made from the very best grade of 35-point spruce-sulphite pulp board and are odorless and tasteless. A pure white paraffine is used for waterproofing them. The ink used for printing these Caps is especially manufactured for this purpose and will not spread or fade if bottles are submerged in water.

Printed in Red, Blue, Green, Black, or Brown. No charge made for special printing in one color in quantities of 50,000 or over. In quantities of 25,000, there is a \$2.50 electro charge on first order. Prices for special printing in quantities less than 25,000 on request.

If some special design or trade-mark is wanted a small charge will be made for the engraving. This expense, however, is charged on the first order only, and the design can be used by the purchaser on all future orders. We will furnish samples showing the different styles of printing on request.

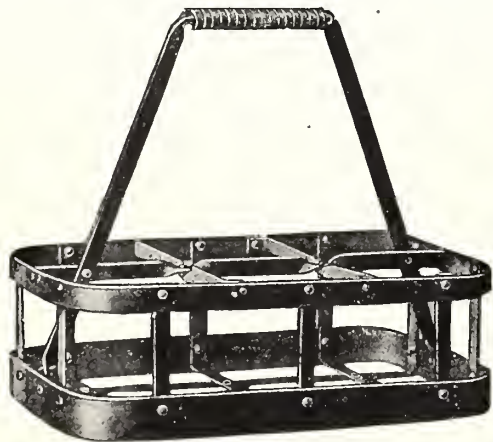
| PRICES      |                  | Postpaid |        |
|-------------|------------------|----------|--------|
| No. 2 Caps. | 1,000 in pkg.    | \$0 50   | \$0 60 |
| No. 2 Caps. | 5,000 in box     | 2 10     | 2 30   |
| No. 2 Caps. | 50,000 in barrel | 15 50    |        |
| No. 3 Caps. | 1,000 in pkg.    | 60       | 70     |
| No. 3 Caps. | 5,000 in box     | 2 20     | 2 40   |

Barrels of 50,000 Caps shipped from factory, freight allowed. We can furnish Caps in 5,000-boxes, printed Buttermilk, Cream, and Baby Milk.

Special prices will be quoted on large quantities of tube Caps for use in capping machines. Tube Caps are made from 40-point board.

Owing to the frequent changes in prices of raw materials prices are subject to change without notice.

## Perfection Milk Bottle Basket



Perfection Baskets are made up of plain annealed bands. They have extra-heavy top and handle, made to last a lifetime.

|          | Each   | Postpaid | Doz.    |
|----------|--------|----------|---------|
| 6-quart. | \$1 40 | \$1 50   | \$15 00 |
| 8-quart. | 1 50   | 1 60     | 16 00   |

## The Certified Bottle Cap



This is the Cap with the Red Flap, and is the Cap to buy if you want the highest quality and the most convenient disc Cap. The flap is not a part of the Cap, but is constructed of a separate piece of exceedingly tough manila fiber which does not tear. The Red Flap can always be grasped with ease, and never requires the aid of any mechanical implement to lift the Cap from the bottle.

There is no printing charge in lots of 50,000 or more, unless fancy design is ordered, requiring photo-engraving. Electro charge on initial orders of less than 50,000 is \$1.50. No printing charge on repeat orders made from the same plate. Choice of blue, red, green, black, orange, purple and golden yellow. Two-color printing, 2 cents extra per thousand.

Prices. Made of 35-point board. Per tube of 500 Caps, 60 cts., postpaid 70 cts.; 1,000 Caps \$1, postpaid \$1.15; 5,000 Caps \$4.25, postpaid \$4.50; 50,000 Caps in barrel, f.o.b. factory, \$39.50. Add 2 cts. per 1,000 to above prices for 40-point board.

## Sealright Liftright Bottle Caps



The Liftright Cap requires no opener—lift-tab is part of the Cap. It has a patented groove at tip of lift-tab which makes it accessible for easy lifting. Lift-tab is strong and tough and slightly stripped at free end, making it easy to pull up, leaving all but tip of lift intact and not affected by moisture. Cap is thoroughly waxed with paraffine; waxing in groove prevents moisture penetration. Has strong wire staple at base of tab which assures positive leverage and prevents tearing.

Liftright Caps will work perfectly in capping machines after they have been properly adjusted for handling this cap. Information and instruction regarding adjustment furnished on request.

Printed in Red, Blue, Green, Black, or Brown. No charge made for special printing in one color in quantities of 50,000 or over. In quantities of 25,000, there is a \$2.50 electro charge on first order. Prices for special printing in quantities less than 25,000 on request.

Made of 40-point board. No. 2 size Caps, 60 cts. per 1,000, postpaid 70 cts.; \$2.50 per 5,000, postpaid \$2.70; 50,000 Caps in barrel \$20, shipped from factory, freight prepaid.

## "Pioneer" Brand Parchment Paper



This genuine Vegetable Parchment Paper is guaranteed to contain no oil, grease, paraffine, or wax. It makes the best package in which to deliver butter, cheese, lard, smoked, salt, or fresh meats, fish and other products.

|                                   | Postpaid      |
|-----------------------------------|---------------|
| 1,000-sheet boxes, 8 x 11 inches. | \$2 00 \$2 15 |
| 1,000-sheet boxes, 9 x 12 inches. | 2 25 2 40     |
| 250-sheet tablets, 8 x 11 inches. | 65 70         |
| 250-sheet tablets, 9 x 12 inches. | 75 80         |

Special prices on larger quantities

## Brushes for the Dairy

### Hand Bottle Brushes



**No. 86.** Pure bristle; large size;  $\frac{1}{2}$ -inch diameter, maple handle, 10 inches long. 75 cts., postpaid, 80 cts.; doz. \$8.



**No. 72.** 60 cts., postpaid, 65 cts.; doz. \$6.50.



**No. 124.** 65 cts., postpaid, 70 cts.; doz. \$7.



### For Machine Washer

**No. 125.** Turbine. 55 cts., postpaid, 60 cts.; doz. \$6.



**No. 100.** Center Brushes for cleaning outside of bottles. \$1.15; postpaid, \$1.25.

**No. 101.** Outside Brushes for cleaning inside of bottles. 65 cts.; postpaid, 70 cts.

Complete Set of 3 Brushes, \$2.10; postpaid, \$2.25



### Palmetto Milk Can Brush

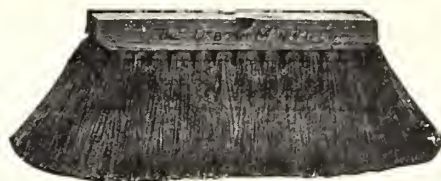
**No. 08.** Palmetto fibre; solid block  $6\frac{3}{4}$  inches long; face  $9\frac{1}{2} \times 5\frac{1}{2}$  inches. Made of an excellent grade of durable fibre, very full, with

flaring wings. 50 cts., postpaid, 60 cts.; doz. \$5.25.



### Genuine African Bass Stable Broom

**No. 0286.** Solid block; length of stock,  $5\frac{1}{4}$  inches clear; four rows, 14 inches long, complete with handle. \$1; postpaid, \$1.25.

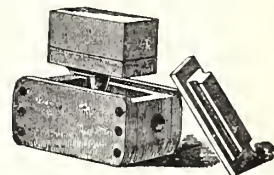


### No. 500 Stable Broom

**No. 500.** Similar to No. 0286, with five rows instead of four; complete with handle \$1.25; postpaid, \$1.50.

### Pittsburgh Butter Mould

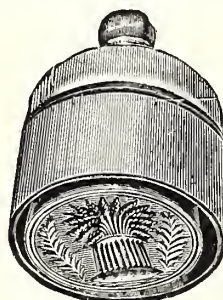
It is a very convenient shape and makes a nice-looking print, desirable for the market, and is being adopted in other sections of the country by butter-makers and packers for shipping purposes.



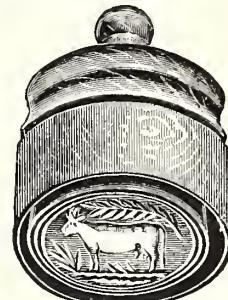
#### PRICES

|  | Each   | Postpaid |
|--|--------|----------|
| $\frac{1}{2}$ -lb. prints, $3\frac{5}{8} \times 2\frac{1}{4} \times 1\frac{7}{8}$ in. .... | \$2 00 | \$2 15   |
| 1-lb. prints, $4\frac{3}{4} \times 2\frac{1}{2} \times 2\frac{1}{2}$ in. ....              | 2 50   | 2 65     |

Block carved with sheaf of wheat design, \$1 additional.



No. 1



No. 2

### Round Butter Moulds

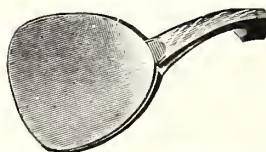
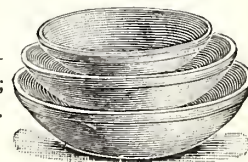
These Moulds are made of the finest selected sugar maple, thoroughly seasoned, hand carved, and are a strictly first-class Mould. Made in 1-pound size.

**No. 1.** Sheaf Design. 50 cts.; postpaid, 60 cts.

**No. 2.** Cow Design. Our new "Jersey Cow" Mould is a very handsome design and is an artistic piece of carving. 50 cts.; postpaid, 60 cts.

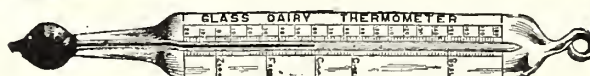
### Hardwood Butter Bowls

Made from selected Michigan hardwood; paraffine wax finish. Extra deep; heavy rimmed. 15-in. \$1.25, 17-in. \$1.75, 19-in. \$2.25.



### Anderson Butter Ladle

Made from white sugar maple. 25 cts.; postpaid, 30 cts.



### Churn Thermometer

Glass cylinder; mercury filled tube; accurate, within one division of the scale; 8 inches long. 50 cts.; postpaid, 65 cts.

## Security Milk Cans



### OHIO PATTERN

Made of Follansbee Forge steel with an extra-heavy coating of pure tin. Welded side seam.

|  | Each   | Doz.    |
|--|--------|---------|
| 5-gal., 6 $\frac{1}{8}$ -in. neck....  | \$3 25 | \$35 00 |
| 8-gal., 7 $\frac{1}{4}$ -in. neck....  | 4 00   | 43 00   |
| 10-gal., 7 $\frac{1}{4}$ -in. neck.... | 4 15   | 45 00   |



### PITTSBURGH PATTERN

Made of heavily coated charcoal bright tin plate. Seamless drawn cover with swivel chain. 5-gal., \$3.10 each, \$33.50 per doz.



### ST. JOHN PATTERN

Heavily constructed. Seamless drawn neck and breast. One-piece upright handle.

|            |        |  |                   |
|------------|--------|--|-------------------|
| handle.    | Each   |  | Each              |
| 1-gal..... | \$2 75 |  | 2½-gal.....\$3 50 |
| 2-gal..... | 3 00   |  | 3-gal.....3 75    |

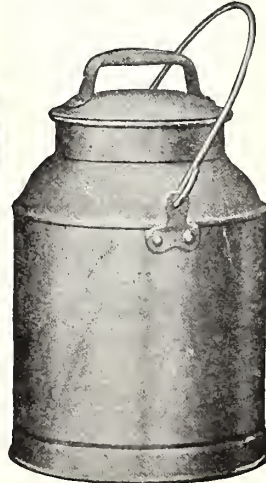
### Name-Plates for Milk Cans

Brass Name-Plates, soldered on can, limit three lines, twenty letters per line, 15 cts. each; doz. or more, \$1.50 per doz. **Half-Dozen Cans at Dozen Rate.**

## Lisk Milk Cans



P-24



P-23

Made from finest charcoal plate; seamless cover and neck. Bottom reinforced with steel band. Heavy steel bail. Sanitary soldered. Full capacity.

|   | Each   | Postpaid | Doz.    |
|---|--------|----------|---------|
| P-2302. Capacity 2 quarts.....                | \$1 25 | \$1 40   | \$13 50 |
| P-2304. Capacity 1 gallon.....                | 1 50   | 1 65     | 16 25   |
| P-2306. Capacity 1 $\frac{1}{2}$ gallons..... | 1 75   | 1 90     | 19 00   |
| P-2308. Capacity 2 gallons.....               | 2 00   | 2 20     | 21 50   |
| P-2312. Capacity 3 gallons.....               | 2 50   | 2 70     | 27 00   |
| P-2404. Capacity 1 gallon.....                | 1 75   | 1 90     | 19 00   |
| P-2408. Capacity 2 gallons.....               | 2 25   | 2 45     | 24 25   |
| P-2412. Capacity 3 gallons.....               | 2 75   | 2 95     | 30 00   |

Half-Dozen Cans at Dozen Rate

## Butter and Egg Carriers for Parcel Post

For description and prices on these, see pages 184 and 185.

## Milk Strainers

**No. 1934.** Made seamless—No. 1934 body and foot drawn of one piece of metal. Wire cloth soldered on bottom and equipped with sturdy wire foot or band, to be used as a foot when straining into a pan, or as a band to hold cloth when straining into a can. The brass wire cloth on bottom can be easily replaced. Sanitary and easy to clean. Capacity, 4 quarts. \$1.25; postpaid \$1.40.

**P19512.** (Not illustrated.) The most popular Strainer on the market. Seamless and sanitary soldered. Furnished with bottom cut out and equipped with removable flat perforated tin disc, convex perforated tin disc, and spring wire. Cotton pads are used between the discs and are furnished at extra charge. Capacity, 12 quarts. \$2; postpaid \$2.25.

**Cotton Discs.** 6-in. diameter. **Plain Discs,** package of 100, 50 cts., postpaid 60 cts.; 500 for \$2.25, postpaid \$2.50. **Thread-faced Discs.** Package of 100, 60 cts., postpaid 70 cts.; 500 for \$2.75, postpaid \$3.

## Lisk Dairy Pails

Complying with Sanitary Dairy Laws of Various States



P-142

P-52

P-84

P-52. 14-qt. Ironclad XX Charcoal plate, plain bail.....\$1 00

P-142. 14-qt. Plain XX Charcoal plate, wood bail..... 1 75

P-84. 14-qt. Fishmouth XX Charcoal plate, plain bail... 2 50

### Pilling Hard-Rubber Teat Plug

The Pilling Hard-Rubber Teat Plug is especially designed to prevent dropping of milk in cows where there is a relaxation of the little muscle at the end of the teat and consequent leakage of milk as soon as enough pressure accumulates in the udder; also to dilate the canal of the teat above the muscle in cases where hard milking is due to contraction of this part of the canal. 65 cts. postpaid.



### Pilling Teat Expander

The Pilling Teat Expander, of metal, nickel plated, is intended to expand and enlarge the opening of hard-milking teats. It also expands the milk canal at the same time. Easy to use. 60 cts. postpaid.



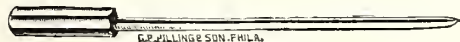
### Pilling Milking Tubes

For Sore and Obstructed Teats and Hard-Milking Cows

Can be made any length by moving the adjustable slide; can also be used for a probe to pass the obstruction. 2 3/4-inch 65 cts., 3 3/4-inch 80 cts., 3 1/2-inch 95 cts., 3 3/4-inch \$1.10, 4 1/4-inch \$1.25 postpaid.

### Medicated Wax Teat Dilators

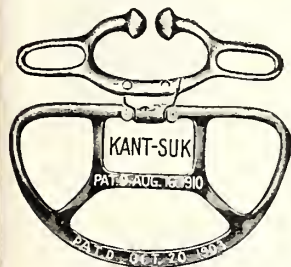
First open teat with a metal dilator, probe or milk tube, then keep a Wax Dilator in teat between milkings. 25 cts. per doz., postpaid; \$1 for 5 doz., postpaid.



### Pilling Teat Opener

The Pilling Teat Opener differs from the Bistoury inasmuch as the Opener is simply used as a reamer or dilator to pass the obstruction. It does not cut the obstruction as the Bistoury does. \$1 postpaid.

Prices quoted on other Pilling Cattle Instruments on request. Send for booklet.



### "Kant Suk" Calf and Cow Weaner

Being made with a hinge joint, it swings out of the way when the calf eats or drinks, but effectually prevents sucking. It is heavily tinned, sanitary, and humane.

|                                  |          |        |
|----------------------------------|----------|--------|
|                                  | Postpaid |        |
| No. 1055. Calf size..            | \$0 50   | \$0 60 |
| No. 1055 1/2. Yearling size..... | 55       | 65     |
| No. 1056. Cow size..             | 60       | 70     |

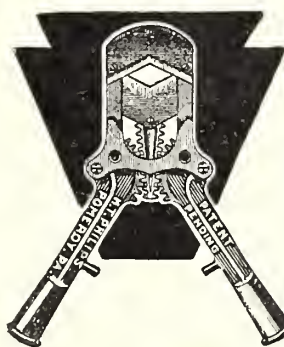
### Common-Sense Calf-Feeder

The Common-Sense Calf-Feeder is a simple, practical device which every calf-owner will appreciate and the value of which can be seen at a glance. The calf sucks his food in a natural manner, and the milk is taken into the stomach without having it form a solid, cheese-like, indigestible lump, which is frequently the case where the calf drinks directly from the pail.



|                    |          |        |
|--------------------|----------|--------|
|                    | Postpaid |        |
| Single Feeder..... | \$2 00   | \$2 15 |
| Double Feeder..... | 3 00     | 3 15   |

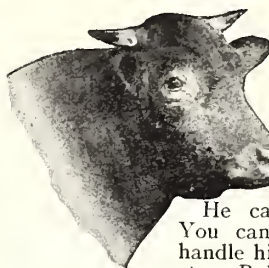
### The Improved Keystone Dehorner



The Improved Keystone Dehorner is the latest and most efficient Dehorning knife on the market today. It has been altered and improved in several important points of construction, until its strength, cutting service and durability have been greatly increased.

The entire instrument is lighter, stronger, and better proportioned than former Dehorning knives. We guarantee it to be a first-class device in every way. Complete with leader, rope, extra set of blades and screws, \$18; postpaid \$18.50.

Special Circular Sent on Request



### Keystone Bull Staff

Catch Him Quickly—Hold Him Firmly with the Keystone Bull Staff.

He can't get away, and he can't lunge. You can never trust a bull, but you can handle him safely and humanely with a Keystone Bull Staff.

Price \$4; postpaid, \$4.15

### "Pierceasy" Bronze Bull Ring

This is "the Ring with a point." It cuts a clean hole and is made in three sizes.

|                          |          |        |
|--------------------------|----------|--------|
|                          | Postpaid |        |
| No. 1. 2 3/4 x 5/16 in.. | \$1 50   | \$1 55 |
| No. 2. 2 7/8 x 3/8 in..  | 2 00     | 2 05   |
| No. 3. 3 1/4 x 7/16 in.. | 2 25     | 2 30   |



### "Bullchane" Pacifier

If you own a bull that's at all hard to handle, you need Wagner's "Bullchane" Pacifier. Subdues most vicious animal without any harmful effects whatsoever.

Cannot twist because it has swivels every 2 feet. Snaps in nose ring and makes finest kind of "hitch" or leader. Strong and long-wearing—and just heavy enough to effectually "tame" the ugliest animal. A boon to stock raisers. \$2.00; postp'd, \$2.10.

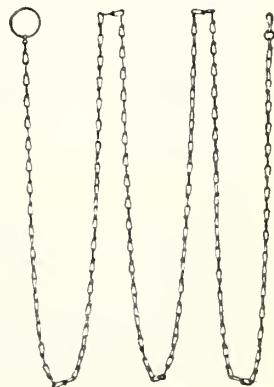


### Tie-Out Chain

Our Tie-Outs are all made with large swivel malleable iron stake ring, swiveling snap, and a swivel in the center.

20-ft. Chain, 75 cts.; postpaid, 85 cts.; 30-ft., \$1; postpaid, \$1.10.

Each Tie-Out Chain is packed in a neat and substantial bag.



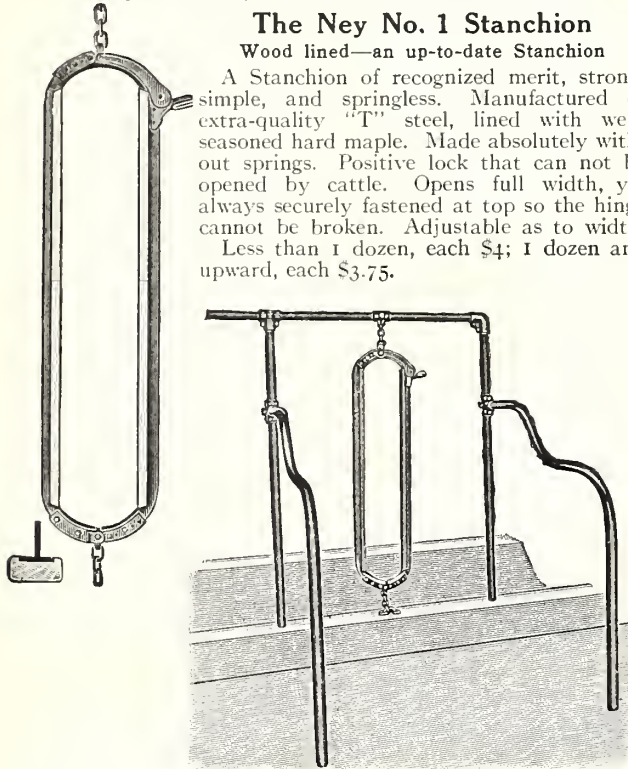
## Ney Dairy Barn Equipment

### The Ney No. 1 Stanchion

Wood lined—an up-to-date Stanchion

A Stanchion of recognized merit, strong, simple, and springless. Manufactured of extra-quality "T" steel, lined with well-seasoned hard maple. Made absolutely without springs. Positive lock that can not be opened by cattle. Opens full width, yet always securely fastened at top so the hinge cannot be broken. Adjustable as to width.

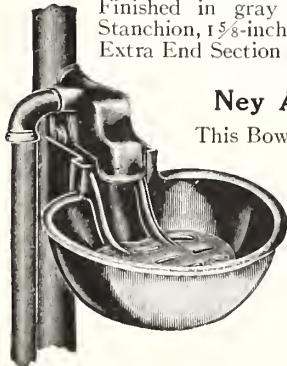
Less than 1 dozen, each \$4; 1 dozen and upward, each \$3.75.



### Ney No. 40 Stall

Constructed with one post between each stall to which the stall partition joins. Made with straight top rail binding the posts which are deeply imbedded in solid concrete. We recommend this single post construction only for narrow stalls up to 40 inches, with our No. 8 Stanchion. Satisfactory for young stock or small cows.

Built entirely of stiff steel tubing, either 1 5/8 or 1 3/4 inch O. D. Top rail shipped in sections of two or three stalls, with all fittings on. "T" fitting attached to posts to receive stall partitions. Malleable iron post bracket to receive open stanchion. Finished in gray enamel. Price, including No. 8 Stanchion, 1 5/8-inch tubing, \$7.65; 1 3/4-inch tubing \$8.10. Extra End Section \$2.70.



### Ney Automatic Water Bowls

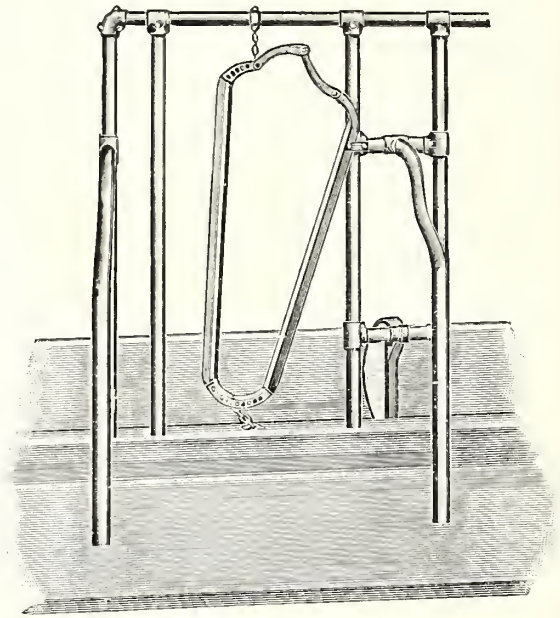
This Bowl is absolutely sanitary, 10 inches in diameter, smooth and round, with no corners to collect dirt. It is equipped with the hinged, dropped-clean feature and small automatic latch by which the bowl can be dropped instantly for cleaning and raised to a normal position just as easily.

Price \$4.50 each; 6 to 12, \$4.25 each; 12 or more, \$4 each.

Ask for complete catalogue of Ney Barn Equipment, showing other styles of Stanchions and Stalls, Stall accessories, Litter Carriers, Bull-Pens, and other equipment.

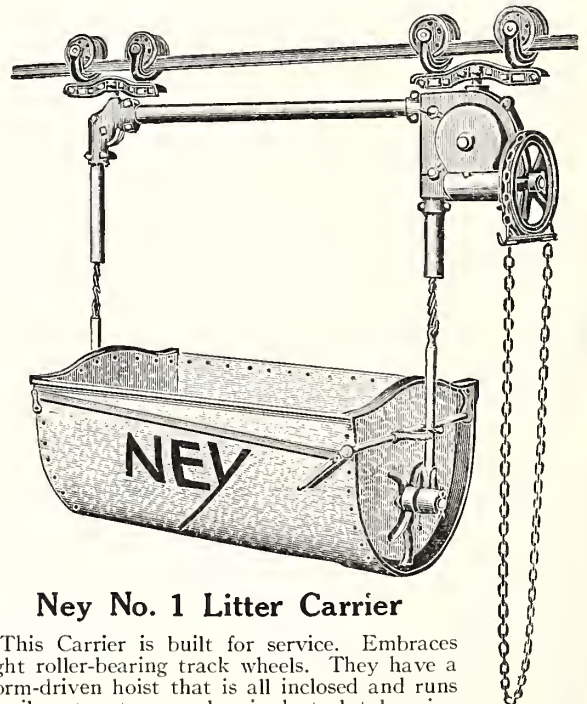
Special prices on complete Barn Outfits quoted on receipt of specifications

ASK ABOUT VENTILATORS AND VENTILATOR SYSTEMS



### Ney No. 11 Stall

An especially attractive construction embracing every feature of known advantage. Two posts cross braced. Rigid top rail. Built of either 1 3/8 or 1 5/8 inch O. D. Steel Tubing and drop Forged Steel "T" Fittings. Standard width 42 inches; can be varied to suit. Price, including No. 1 Stanchion, 1 5/8-inch tubing, \$11.25; 1 3/8-inch tubing \$12.15. Extra End Sections \$3.15.



### Ney No. 1 Litter Carrier

This Carrier is built for service. Embraces eight roller-bearing track wheels. They have a worm-driven hoist that is all inclosed and runs in oil, extra-strong galvanized steel tub using heavy malleable angles at ends and extra-large bearings. Price, with 8 to 10-bus. Tub, \$51; with 10 to 12-bus. Tub, \$53.50. Ask for complete catalogue and prices on track and fixtures for Litter Carrier.

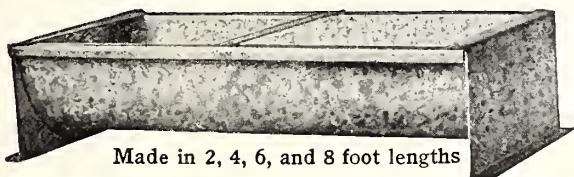
## Old Hickory Smoked Salt

*Combines Curing and Smoking*



Put your meat down in Old Hickory Smoked Salt as you have always done, replacing ordinary salt pound for pound in your recipe. Follow your regular procedure in the put down, the overhauling, the age of the cure, washing and soaking. When the cure is completed the meat will be thoroughly smoked. The smoke from the salt penetrates every fibre of the meat uniformly. It increases the preservative effect—makes the meat keep better and you do not need a smokehouse. The job is done when the salt cure is completed. You not only save the labor, the dirt, and the discomfort of the smokehouse, but you get a better result. The Old Hickory method eliminates smokehouse shrinkage, which is never less than 8 to 10 per cent, worth more than twice as much as the price of the Old Hickory Smoked Salt required to cure the dressed meat of a 225-pound hog. Directions with each package. 1-lb. pkg. 20 cts., postpaid 30 cts.; 2 for 35 cts., postpaid 45 cts.; 10-lb. pkg. \$1.10, postpaid \$1.30.

## Superior Hog Trough



Made in 2, 4, 6, and 8 foot lengths

These are made of extra-heavy galvanized steel with riveted corners and brace, and spot welded ends. Joints well soldered.

|             | Each   | Doz.   |             | Each   | Doz.    |
|-------------|--------|--------|-------------|--------|---------|
| 2-foot..... | \$0 85 | \$8 25 | 6-foot..... | \$2 25 | \$24 00 |
| 4-foot..... | 1 60   | 17 00  | 8-foot..... | 2 50   | 27 00   |

Half-Dozen at Dozen Rate.

## Perfection Anti-Cow Kicker

The grapple or hook parts are made from a special size round steel, so shaped and arranged to prevent torturing or injuring the animal's legs. An extra-heavy strong webbing comes in front of the legs, thus acting as a pad, absolutely preventing cutting, injuring, or bruising the fleshy parts, such as produced by chain links, which often gall, bruise, or injure the sides and front of legs. \$1, postpaid.

## Blatchford's Calf Meal

Blatchford's Calf Meal is absolutely the only milk-substitute which contains all the elements the calf requires for rapid and healthy growth.

Blatchford's Calf Meal is the Original Calf Meal. It was the first on the market. For practically forty years it has been consistently used in the United States by a constantly increasing number of farmers and dairymen.

It is the only Calf Meal that is thoroughly cooked and prepared for digestion. It is easy to feed. Calves relish it.

It supplies in easily assimilated form all the food elements necessary for rapid growth, early maturity, thrift and health.

### Stock Feeds

We make a specialty of supplying our customers with high-grade stock feeds and concentrates of which the following is a partial list:

|                       |                        |
|-----------------------|------------------------|
| Buffalo Gluten Feed   | Dried Beet Pulp        |
| Digester Tankage      | Unicorn Dairy Ration   |
| Oil Meal, Old Process | Cotton Seed Meal       |
| Flaxseed Meal         | Blatchford's Calf Meal |
| Whole Flaxseed        | Alfalfa Meal           |

Special price-list sent on request

# Semi-Solid Buttermilk

*For Hogs, Calves and Poultry*

**KEEPS THE HOGS HEALTHY AND MAKES THEM GROW FAST**

Semi-Solid Buttermilk is pure, rich buttermilk with the water taken away. Raw buttermilk by analysis is about 93 per cent water. Semi-Solid Buttermilk, as the name implies, is a semi-solid concentrated or condensed buttermilk. In other words, it is fresh, wholesome buttermilk containing about 6 per cent lactic acid with all the feeding values that the richest buttermilk contains—with the water content taken away to save bulky handling and freight expense.

For details regarding Semi-Solid Buttermilk as a poultry feed see page 194. Ask for special circular and testimonials.

## Darling's 60 Per Cent Protein Digester Tankage

Darling's Digester Tankage builds bone and muscle on young pigs, and matures a hog for market from two to three months earlier than corn alone. Hogs that are fed with it are better proportioned—more lean and less fat. They are sound, and ship well with surprisingly small shrinkage.

# RAX



## Saves Money by Saving Crops

It is estimated that rats and mice consume grain each year in the United States alone to the value of more than \$10,000,000. Most of this waste can be saved if Rax is given a chance.

**Rax Is Not a Poison.**—While it is absolutely deadly to rats and mice, it is *harmless to human beings, domestic animals, poultry and birds.* It may be used anywhere with complete safety.

**Rats Leave Before They Die.**—Within a few days after eating bait prepared with Rax, rats and mice become feverish and seek the open air where they die—outdoors. Price 75 cts. per bottle, postpaid.

## Kills Rats Without Danger



K-R-O cannot kill live-stock, pets, or poultry, yet is guaranteed to kill rats and mice every time.

Use K-R-O freely around the poultry-yard without danger to your flocks. Severest experiments have proved it safe. Chickens have been

fed a steady diet of food containing 10 per cent K-R-O for as long a period as six weeks without injury. 75 cts., postpaid.

## Rat Corn

It mummifies them. No matter where they die they simply DRY UP. Positively do not smell.

Rat Corn is a new and scientific discovery, and without a doubt the greatest rat-destroyer in the world; the only one that kills rats without any bad, dangerous or disagreeable effects. A trial will convince you. 25 cts., 50 cts., and \$1 per can, postpaid; 6-lb. pail \$5, express prepaid.

FOR PRICES ON ABOVE FEEDS SEE OUR MONTHLY FEED PRICE-LIST ACCOMPANYING THIS CATALOGUE



## NON-POISONOUS DEODORANT STERILIZER

Kills Bacteria • Banishes Odors

IN

MILK UTENSILS, MILKING MACHINES  
SEPARATORS, CANS, PAILS

Easy and cheap to use. Praised by dairy officials for over twelve years

Disinfects • Treats

Calf Scours, Retained Afterbirth, Roup, White Diarrhea  
All Hog, Herd or Poultry Diseases



Kills germs that cause disease. Heals,  
Restores healthy action

FREE BULLETINS ON ALL USES

Sold on Money Back Guarantee. We Recommend It

### PRICES

|              |        |
|--------------|--------|
| Ot. ....     | \$1 25 |
| Gal. ....    | 3 00   |
| 5 gals. .... | 12 50  |

(Dilute with water according to directions)

## "KNOX OUT" FLY SPRAY STOCK LICE KILLER CHICKEN MITE CHASER

### DISTINCTIVE FEATURES



1. No bad odor.
2. Clean, clear, light color.
3. Is not sticky.
4. Will not taint milk.
5. Will not discolor cattle.
6. Will not burn cattle.
7. Does not gum hair.
8. Will not clog sprayer.
9. Costs no more than others.
10. Sold on money back guarantee.
11. Ingredients will not separate.
12. Not made of any by-products, contains no tar oil, or sheep dip.
13. Ingredients 100% active — no inert material

We Highly Recommend Knox - Out

|                      |               |
|----------------------|---------------|
|                      | Postpaid      |
| Quart can. ....      | \$0 60 \$0 75 |
| Gallon can. ....     | 1 50 1 80     |
| 5-gallon can. ....   | 6 75          |
| 30-gallon drum. .... | 35 00         |

## Wyandotte Cleaner and Cleanser

Wyandotte Dairyman's Cleaner and Cleanser is used in all dairy countries of the world, and in the United States and Canada 85 per cent of the butter and cheese-makers use it daily. To this large number can be added the thousands of farmers, dairymen, and milk dealers who are steady patrons.

It contains no soapy grease, makes no soapy suds, nor resembles soap agents in any way. It is a sanitary cleaner made purposely to do the work of cleaning milk utensils and containers.

### PRICES

|                           |        |                 |
|---------------------------|--------|-----------------|
| 5-lb. sack. ....          | \$0 45 | Postpaid \$0 60 |
| 80-lb. keg (bulk) .....   | 4 90   |                 |
| 280-lb. bbl. (bulk) ..... | 13 50  |                 |

## Shoo-Fly THE ANIMALS' FRIEND

"REGISTERED • TRADE MARK"



Shoo-Fly is an insecticide, germicide, antiseptic and disinfectant, being a liquid compound (free of water or gummy substances) absolutely harmless to man or beast and exceedingly obnoxious to flies and insect-pests. Not objectionable to man. Cures all sores from bottom, without much scab. Kills all lice and mites in poultry-

house or wherever sprayed. No flies, warbles, mosquitoes, Buffalo gnats, ticks or vermin on horse or cow, and one-third more milk where Shoo-Fly is sprayed. Thousands of testimonials.

|                    |        |                 |
|--------------------|--------|-----------------|
| Quart can. ....    | \$0 75 | Postpaid \$0 90 |
| Gallon. ....       | 1 50   | 1 80            |
| 5-gallon can. .... | 7 00   |                 |

## Conkey's Fly Knocker

Every stockman, every dairyman needs Fly Knocker. Don't let flies torment your horses; don't let them worry your cows. Cows give more milk and butter-fat and horses work easier when you save their energy by keeping off those winged pests.

|                |               |                 |               |
|----------------|---------------|-----------------|---------------|
|                | Postpaid      |                 | Postpaid      |
| Quart. ....    | \$0 60 \$0 75 | Gallon. ....    | \$1 50 \$1 80 |
| 2 quarts. .... | 90 1 10       | 5 gallons. .... | 7 25          |



## Sal-Vet (MEDICATED SALT)

This is composed of sulphate of iron, sulphur, quassia, gentian, carbonized peat, charcoal, epsom salts, and tobacco coated on grains of salt, by a special process. Salt provides the "voluntary feeding principles." Farmers should salt their stock with Sal-Vet, thus giving them the medication to keep out worms, strengthen digestion, and make more profit out of their feed. It is sold on a positive guarantee. A hundred testimonials right from his own neighborhood will be mailed to any farmer on his application.

|                   |               |
|-------------------|---------------|
|                   | Postpaid      |
| 10-lb. pkg. ....  | \$1 00 \$1 20 |
| 25-lb. pkg. ....  | 2 25 2 65     |
| 50-lb. pail. .... | \$4 00        |
| 100-lb. bag. .... | 6 75          |

## Cows' Relief

Cows' Relief is one of the greatest remedies ever compounded for cattle and is worth its weight in gold to the farmer or dairyman, as it is a specific remedy for caked bag and all teat troubles.

### PRICES

|   |
|---|
| Small size. 50 cts.;<br>postpaid, 55 cts. |
| Large size. \$1; post-<br>paid, \$1.10.   |



## Kow-Kare

The great cow medicine for abortion, barrenness, scouring, bunches on the udder, red water, and "off feed." Kow-Kare assists nature, makes pure blood, corrects stomach disorders, improves appetite, and being a safe and powerful tonic, makes a larger flow of milk.

### PRICES

Small Size.....\$0 65  
Large Size.....1 25  
Half-doz. Large Size for \$6.25.



## What Dairymen Tell Us —

About their success with KOW-KARE—the great cow medicine—makes us feel perfectly safe in putting our own endorsement back of it. We'd like to see this great remedy in every barn for the prevention and relief of such cow ailments as Barrenness, Abortion, Retained Afterbirth, Scouring, Bunches, Milk Fever, Loss of Appetite, etc.

BAG BALM is equally reliable for all exterior sores, cuts, chaps, caked bag, swellings of the udder, etc.

Write for "The Home Cow Doctor." Free

DAIRY ASSOCIATION CO.  
Lyndonville, Vt.



## Bag Balm

We recommend Bag Balm for all diseases of udder and teats, caked bag, sore teats, bunches, chapping, cuts, inflammation, etc. It makes easy milkers of hard ones and keeps all the parts in a sanitary, healthful condition. 60 cts.; postpaid 70 cts.

## O. H. Cow Tone



The result of years of experiment, research and study. It is to be used in cases of abortion, barrenness, retained afterbirth, red water, garget, dysentery, bloat, or hoven. In the treatment of such cases it has no equal in the world and you should keep it on hand and use it as directed. Cow Tone stimulates the processes of digestion and elimination, establishes the health and tone of the animal so that a noticeable increase in the flow of milk follows its use on cows that are confined in stables during the winter.

Small Size.....\$0 50  
Large Size.....1 00  
Postpaid \$0 60 1 15

## Blackman's Medicated Lick-A-Brik

The Best and Most Convenient Stock Remedy Known



### WHAT IT DOES

Aids digestion; removes worms; purifies the blood; cures skin diseases, kidney, stomach and bowel trouble; prevents colic, blind staggers, heaves, Texas fever, lampers, murrain; creates a healthy appetite; tones up the system; removes old coat of hair and brings out the new.

### WHAT IT DOESN'T DO

Doesn't get old and wormy; doesn't lose strength with age; doesn't get eaten up by mice and rats; doesn't have to be hunted up and dosed out at feeding time (often in the dark) as do other remedies, for after being placed in the feed-box or holder it is always where stock can get it as they need it.

### BETTER AND CHEAPER THAN STOCK POWDERS

Blackman's Medicated Salt Brick contains absolutely nothing but dairy salt mixed with sulphur for a blood purifier, copperas for worms and the bowels, saltpeter for the kidneys, and nux vomica, one of the best known tonics.

25c. per Brick, postpaid 30c.; doz. Bricks \$2.75, 2 doz. Bricks \$5.25

## Calves' Cordial

One of the best remedies ever prepared for the treatment of scours in calves and cows, also a valuable remedy for stomach and bowel disorders. It acts as an astringent upon the digestive tract, soothing the inflamed tissues and removing the fevered condition. Large size 50 cts.; postpaid 55 cts.

## Phillips Corona Ointment

For Scalds, Burns, Cuts, Wounds, Cracked and Chapped Hands, Frosted Feet, White Diarrhea of Baby Chicks, Caked Udders, Sore Teats, Sore Shoulders, Cuts and Scratches, Cracked Hoofs. Keep a can in the house and barn. Use it for any sore or wound on man or beast, and you will find it "worth its weight in gold." 8-oz. can 65 cts., postpaid 70 cts.; 20-oz. can \$1.25, postpaid \$1.35.



## Dr. Hess' Stock Tonic

A conditioner and worm-expeller with minerals added for Horses, Cattle, Hogs, and Sheep. 3 1/2-lb. pkg. 50 cts., postpaid 65 cts.; 10-lb. pkg. \$1.25, postpaid \$1.50; 25-lb. pail \$3, postpaid \$3.40; 100-lb. drum \$10.

## Pratt's Animal Regulator

A tonic for Horses, Cattle, Sheep, and Hogs. Pkgs. 25 cts., postpaid 30 cts.; 50 cts., postpaid 60 cts.; \$1, postpaid \$1.20; 12-lb. pail \$2.15, postpaid \$2.40; 25-lb. pail \$3.40, postpaid \$3.80.

## Pratt's Dip and Disinfectant

Qt. 55 cts., postpaid 70 cts.; 2 qts. 90 cts., postpaid \$1.10; gal. \$1.50, postpaid \$1.80.

## Pratt's Cow Tonic

A regulator and medicinal tonic. Pkgs. 50 cts., postpaid 60c.; \$1, postpaid \$1.20; 12-lb. pail \$2.50, postpaid \$2.75; 25-lb. pail \$4.50, postpaid \$4.90.

## Pratt's Hog Tonic

A digestive tonic, bowl regulator, worm-expeller, and fattener. Pkgs. 50 cts., postpaid 55 cts.; \$1, postpaid \$1.10.

## Retsof Rock Salt

The genuine Retsof Rock Salt in lumps weighing from 5 to 15 pounds each. 50 lbs. \$1.25, 100 lbs. \$1.75, 200 lbs. (sack) \$2.75.

## U. S. Table and Dairy Salt

10-lb. sack 25 cts., 25-lb. sack 50 cts., 280-lb. bbl. \$4.75.

# A COMPLETE LINE OF BEE SUPPLIES



The A. I. Root Company, leaders in the manufacturing of bee supplies for over half a century, and today the largest Bee-Supply manufacturers in the world, are represented by us in this territory. It is a pleasure for us to sell Root Quality Bee Supplies, and their guarantee assures you of absolute satisfaction.

Our big 48-page catalogue of Root Quality Bee Supplies will be mailed free to all interested persons. Just write for it. We quote you factory price on a complete line of Bee Supplies.

## WRITE FOR OUR SPECIAL BEE SUPPLY CATALOGUE

Our Bee Supply Catalogue contains a complete line of bee supplies. If you are in the market for an inexpensive Extractor, you will want our New Novice. It is described in the big Catalogue. Send for the Catalogue. It is free.

## The Buckeye or Root's Double-Walled Packed Hive

will permit the bee-keeper to winter his bees successfully around Pittsburgh. Makes possible early brood-rearing, and this provides a strong colony for the honey-flow. Takes standard equipment. Comes with metal cover (telescopes), inner cover, chaff-tray, bottom-board, Hoffman frames.

| Cat. No. | DESCRIPTION                                   | Quan. | Wt. lbs. | Price  |
|----------|---|-------|----------|--------|
| 22102    | Buckeye Hive complete, no foundation          | 1 KD  | 53       | \$6 50 |
| 22105    | Buckeye Hive complete, full sheets foundation | 1 NP  | 60       | 12 30  |

## One-Story Standard Hive, with Metal Cover—10-Frame

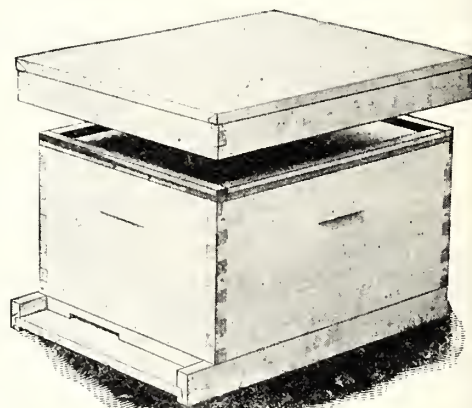
This Hive is the one most generally used by the largest honey-producers on account of its light weight and the ease with which it may be moved from one location to another. However, it must be packed for winter. It is of highest quality throughout, being made of best selected white pine, perfectly milled and fitted together.

This Hive is 16¼ x 20 inches, and 9⅞ inches deep, outside measurements.

Hives in the flat are furnished with nails, tin rabbets, reversible bottom-board, metal cover, with inner cover, Hoffman frames. Write for price on eight-frame size.

| Cat. No. | DESCRIPTION                                    | Quan. | Wt. lbs. | Price  |
|----------|--|-------|----------|--------|
| 22202    | Standard Hive complete, no foundation          | 1 KD  | 31       | \$3 50 |
| 22203    | Standard Hive complete, no foundation          | 5 KD  | 149      | 16 00* |
| 22205    | Standard Hive complete, full sheets foundation | 1 NP  | 33       | 7 80   |

\*Packed in four packages.

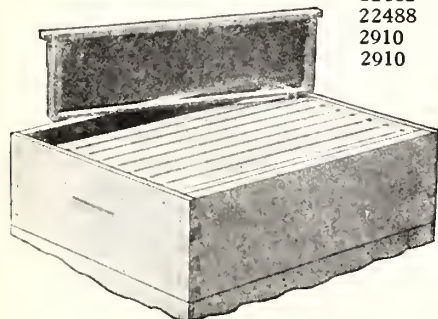


## Root Hive-Bodies—10-Frame

What is said about the Root Hive applies, of course, to Root Hive-Bodies. The standard dovetailed Hive is of Langstroth dimensions, 10-frame size, and measures 16¼ x 20 inches and is 9⅞ inches deep. The Hive-Body may be used

either as a brood-chamber, i. e., the lower story of the Hive, or as a full-depth upper story or super for extracted honey, thus forming a two-story Hive. Nails and tin rabbets included with bodies. No division-board.

| Cat. No. | DESCRIPTION                              | Quan.  | Wt. lbs. | Price  |
|----------|--|--------|----------|--------|
| 22482    | Standard Body with frames, no foundation | 1 KD   | 15       | \$1 70 |
| 22488    | Standard Body without frames             | 5 KD   | 45       | 4 00   |
| 2910     | Hoffman Frames for use in these bodies   | 50 KD  | 25       | 3 00   |
| 2910     | Hoffman Frames for use in these bodies   | 100 KD | 47       | 5 80   |



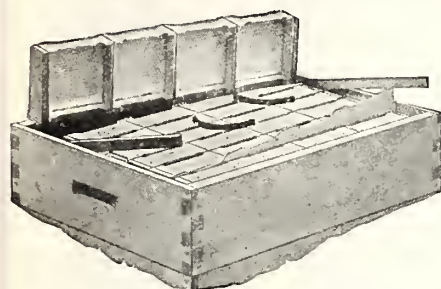
## Shallow Extracting Supers (5 11/16 inches deep)

This Super is largely used in the production of chunk honey. It is also used for producing extracted honey in shallow frames, two of these frames fitting together in an extractor comb pocket of 12-inch width. Two of these Supers may also be used as one brood-chamber Hive, and any style of Super may be used above for comb or extracted honey. This Super is also used for section-holders holding 4 x 5 sections. This is our regular extracting Super, 5⅛ inches deep, and is furnished with shallow Hoffman frames, 5⅜ inches deep, without foundation. No tin rabbets or division-boards furnished.

| Cat. No. | DESCRIPTION                                       | Quan. | Wt. lbs. | Price  |
|----------|---|-------|----------|--------|
| 22522    | 10-Frame Super with shallow frames, no foundation | 1 KD  | 9        | \$1 05 |
| 22523    | 10-Frame Super with shallow frames, no foundation | 5 KD  | 39       | 4 60   |

Above prices do not include postage. For postpaid prices on mailable articles, use the weight given in connection with each article. Refer to inside front cover page for rates

# THE BEST YOU CAN BUY



4 1/4 x 4 1/4 x 1 7/8 Beeway Section Super

## Beeway Section Super (4 1/4 x 4 1/4 x 1 7/8)

This Beeway Section Super, 4 3/4 inches deep, is most commonly used. It takes slotted section-holders, slotted wood separators, follower, and springs, and is furnished with or without sections, and with or without inch foundation starters. It may be used on any of our single or double-walled hives, tiered up one or more high.

After the Supers are filled, ready to be removed, a bee-escape board should be used to free the Super of bees.

Super complete without sections includes nails, flat tins, end-stops, Super springs, slotted section-holders, slotted separators, and follower.

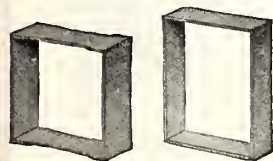
| Cat. No. | DESCRIPTION   | Quan. | Wt. lbs. | Price  |
|----------|---|-------|----------|--------|
| 22542    | 10-frame Super, without sections or foundation..... | 1 KD  | 8        | \$1 05 |
| 22543    | 10-frame Super, without sections or foundation..... | 5 KD  | 42       | 4 60   |
| 22545    | 10-frame Super, with sections, full sheets.....     | 1 NP  | 11       | 2 85   |

## Plain Section Super (4 x 5 x 1 3/8)

We recommend this Super in preference to any other comb-honey Super that we sell. It is a deeper Super (5 1/8 inches), and is fitted with section-holders and M fences with end stops and springs. The regular 16 3/4-inch ten-frame width will easily admit eight section-holders and eight fences with Super springs.

Super complete without sections includes end-stops, section-holders, fences, Super springs, flat tins, and nails.

| Cat. No. | DESCRIPTION   | Quan. | Wt. lbs. | Price  |
|----------|---|-------|----------|--------|
| 22552    | 10-frame Super complete, no sections or foundation..... | 1 KD  | 11       | \$1 70 |
| 22553    | 10-frame Super complete, no sections or foundation..... | 5 KD  | 50       | 7 70   |
| 22554    | 10-frame Super with sections, 1-inch starters.....      | 1 NP  | 13       | 3 00   |



## Section Honey-Boxes

Our Honey Sections are high grade and of fine appearance, cut from clear basswood. They are smooth and highly polished. Sold only in full crates.

| Quan. | 4 1/4 x 4 1/4 x 1 7/8 in. | Wt. lbs. | Price  | 4 x 5 x 1 3/8 in. | Wt. lbs. | Price  |
|-------|---------------------------|----------|--------|-------------------|----------|--------|
| 100   | 2440.....                 | 7        | \$1 30 | 2450.....         | 6        | \$1 20 |
| 250   | 2441.....                 | 18       | 3 20   | 2451.....         | 15       | 2 95   |
| 500   | 2442.....                 | 35       | 6 25   | 2452.....         | 30       | 5 75   |
| 1000  | 2443.....                 | 70       | 12 50  | 2453.....         | 60       | 11 50  |



## Root Foundation-Fastener

The cut at the left shows the Root Foundation-Fastener with lamp. It is a very rapid tool and gives excellent results where a cheaper tool is wanted. 415, Root Fastener with lamp, (wt. 8 ozs.), 60 cts. each. 416, Root Fastener without lamp, (wt. 2 ozs.), 20 cts. each.

## Porter Bee-Escapes

In taking off honey the Bee-Escape is the greatest labor-saver ever invented. It frees the supers of bees so that no shaking of heavy supers or smoking is necessary. 411, Porter Double Escape, without board, 16 cts. each. 22676, Porter Board with Double Escape, nailed (weight 2 lbs.), 56 cts. each.



## Spur Wire-Imbedder

This is an excellent device for imbedding the wires of frames into the sheets of foundation. The teeth are broad and blunt so there is no danger of weakening the foundation.

401, Spur Wire-Imbedder (weight 3 ozs.), 25 cts. each.

## Wire for Frames

This Wire is used to hold foundation or combs securely in the frames, and at the same time reduce the danger of sagging. 670 feet are required for 100 Hoffman frames. 447, 1/2-lb. spool tinned wire, 700 feet, 28 cts. each.



## Aircro Comb Foundation SINGLE PLY FOUNDATION

Genuine Aircro Process Foundation, made into clear tough sheets from finest quality beeswax. Brood Foundation is cut in sheets size 7 7/8 x 16 3/4 inches; Super Foundation sheets are 3 7/8 x 15 3/4 inches and 3 1/8 x 14 1/4 inches.

The package numbers in the following price-list are for medium brood sizes, 7 7/8 x 16 3/4, and for thin super sizes, 3 7/8 x 15 3/4 only.

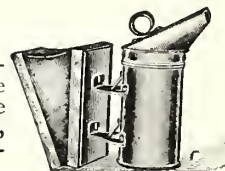
|           | Medium    | Per pkg. | Thin      | Per pkg. |
|-----------|-----------|----------|-----------|----------|
| 1-lb. box | 5111..... | \$0 90   | 5331..... | \$0 98   |
| 2-lb. box | 5112..... | 1 74     | 5332..... | 1 90     |
| 5-lb. box | 5113..... | 4 25     | 5333..... | 4 65     |

## THREE-PLY FOUNDATION

The strength is in the Comb. The best Brood Foundation made—non-sagging, non-stretching, non-warping, all worker cells, no gnawing around wires. For Hoffman Frames (8 1/2 x 16 3/4). 10-sheet packages for Hoffman Frames 5000.....\$1 30  
1-lb. box 5001..... 95  
5-lb. box 5003..... 4 50

## Smokers

The latest improved model has anti-spark tube, which provides a safe force draft, has long-life flexible hinge, and wire handle, that is always cool. 423, Standard Tin Smoker, with 3/4-inch fire-box (weight 2 lbs.), \$1.15 each.



## Queen Excluders

Queen Excluders are used to confine the queen to the brood-chamber, and are very generally used in the production of extracted honey. 4241, 10-frame, 7-wire and wood, 16 1/4 x 20 inches (weight 3 lbs.), 70 cts.

## Root Bee-Veils

Root Indestructible Bee-Veil, made of highest grade, dead-black wire cloth, is comfortable and snag-proof. Can be worn on any hat. Root Indestructible Bee-Veil, weight 1 lb.....\$0.90  
253 Veil, cotton tulle throughout, weight 3 ozs..... 80

## Root Collapsible Bee-Hat

Designed especially for beekeepers' use. 256, Root Bee-Hat (weight 4 ozs.), 80 cts. each.

Above prices do not include postage. For postpaid prices on mailable articles, use the weight given in connection with each article. Refer to inside front cover page for rates



## *Big Profits Made from Poultry*

**I**N this age of modern industry, the poultry business has developed along sound lines. The farmer has found that poultry can be the best-paying crop on the farm. Even the back-yard or small-town poultryman is able to keep a flock of hens profitably, although confined to their laying-house, no outdoor runs being necessary. This means that anyone who desires to keep poultry, and who provides suitable buildings, can keep chickens profitably either as a side-line or as a principal source of income.

Few people realize that in the State of Pennsylvania alone there are more than eighteen million head of poultry, yet the bulk of the eggs and poultry meat required for human consumption by the great population of the East comes from western sources. You have, right at your door, a market for your poultry products.

It is our desire to add many poultry-supply customers to our already large list of patrons of previous years. Our pride has been in building this patronage and our intent is to continue to merit it.

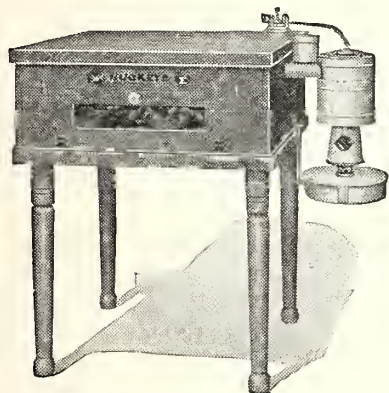
### *Order Your Day-Old Chicks Now*

**W**E can furnish our customers with Day-Old Chicks of all popular breeds and from well-bred stock. Beginning in March, we receive daily consignments of Chicks from nearby hatcheries, and suggest that you place your order early, specifying the breed and variety you want, the quantity and date of delivery desired. We will immediately quote you prices.

We can supply pullets in the early fall and winter. Ask us.

# BUCKEYE INCUBATORS

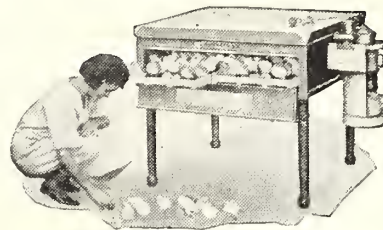
EQUIPPED WITH NEW EGG-TURNERS. DRASTIC PRICE REDUCTION



## Buckeye Style E

The popular-priced Buckeye. A single-wall machine built to meet the demand for a low-priced incubator. Economy practiced only in those parts that do not affect hatching quality and built in immense quantities allow our offering them at prices that defy competition. They contain all the vital Buckeye features, including the 12-ounce copper tanks, sold under the same absolute guarantee. No extras to buy.

|        | Capacity | Shipping Weight | Price   |
|--------|----------|-----------------|---------|
| No. 14 | 65 eggs  | 58 lbs.         | \$16 50 |
| No. 16 | 110 eggs | 85 lbs.         | 22 50   |
| No. 17 | 210 eggs | 125 lbs.        | 30 00   |



## Buckeye Standard

The world's best Incubator, built up to a standard, not down to a price. California redwood construction. Double-wall insulated case. Heavy copper tanks. Buckeye patented metal thermostat. Safe, economical heater. No extras to buy—each Incubator complete in every detail.

|       | Capacity | Shipping Weight | Price   |
|-------|----------|-----------------|---------|
| No. 1 | 110 eggs | 110 lbs.        | \$30 00 |
| No. 2 | 175 eggs | 125 lbs.        | 35 00   |
| No. 3 | 250 eggs | 165 lbs.        | 46 50   |
| No. 4 | 350 eggs | 195 lbs.        | 55 00   |
| No. 5 | 600 eggs | 300 lbs.        | 87 50   |

### GUARANTEE

Every Standard or Style E Buckeye Incubator is *guaranteed* to hatch more chicks and stronger chicks than any Incubator of any other brand.

The perfect construction of all mechanical parts is also guaranteed, and any Standard or Style E Incubator or part thereof that does not fulfil our guarantee in every particular, will be replaced without question any time within forty days.

(Signed) THE BUCKEYE INCUBATOR COMPANY

ASK FOR THE NEW BUCKEYE CATALOGUE

## The Oakes Electric Hen



The Oakes Electric Hen presents the very latest and most improved inventions in artificial incubation and will produce the largest possible percentage of strong, fluffy chicks under all conditions. Simply attach to a light socket, adjust the heat with the automatic thermostat, and the heating requires very little attention for the entire hatch. The cost of heating is surprisingly small in a room of ordinary temperature. Either size can be operated in living-room or kitchen if you have no regular incubator room, as there are no odors. All parts are of metal except the insulation, which is composed of porcelain, asbestos, and fiber. The case is double-walled and packed with wool-felt to hold the heat. The heating element in the top distributes the heat evenly throughout the chamber. After placing eggs in the machine, the only attention necessary is to cool the eggs in the usual manner and turn them twice a day by rolling slightly with the palm of the hand. The regulator automatically turns the current on and off as required. There is no chance of overheating, and the temperature can be regulated to a fraction of a degree.

The top of the incubator can be used as an electric brooder when you are through hatching, and for this purpose a double brooder curtain and a set of brooder legs is furnished with each incubator. You thus get both incubator and brooder for the price of incubator alone. The top is removed from the incubator by taking out the hinge pin. Made for 32-volt, 110-volt or 220-volt alternating or direct current, but in ordering *be sure to specify* both voltage and kind of current that you are going to use.

No. 87. 60-egg size, complete with thermometer, brooder curtains, egg-tester, and legs, \$18; postpaid, \$18.35.

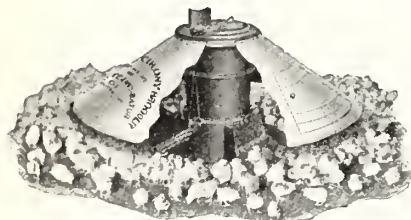
No. 88. 100-egg size, with same accessories, \$25; postpaid, \$25.50.

# BUCKEYE COLONY BROODERS

*Biggest Brooder Values Ever Offered the Public*

PRICES AGAIN REDUCED

## The Coal-Burning Brooder



A Brooder that burns hard or soft coal, is self-feeding, self-regulating, simple, safe, and everlasting. Nothing to break—nothing to wear out. Equipped with a double automatic regulator that absolutely controls the temperature every minute of the day and night. Stove is of heavy cast iron, equipped with rocker grate. Self-cleaning and anti-clog. Equipped with gas burner in place of coal grate at same price.

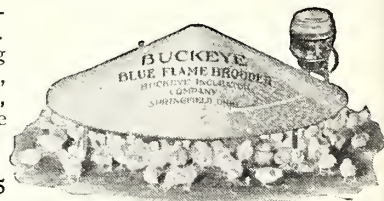
### The Buckeye Revolving Brooder Canopy

All Coal-Burning Brooders are equipped with a revolving canopy, with large door, eliminating the canopy bail, rope, and pulleys, and permitting easier cleaning around the brooder. Note the following coal capacity, size, and weight of stoves, diameter of canopies, size of grates, and compare them with other Coal-Burning Stoves of the same chick capacity on the market today.

|                         | No. 117               | No. 118              | No. 119               |
|-------------------------|-----------------------|----------------------|-----------------------|
| Chick Capacity.....     | 350                   | 500                  | 1,000                 |
| Height of Stove.....    | 20 in.                | 20 $\frac{7}{8}$ in. | 23 $\frac{7}{8}$ in.  |
| Diameter of Base.....   | 11 in.                | 12 $\frac{1}{8}$ in. | 13 $\frac{1}{2}$ in.  |
| Diameter of Grate.....  | 8 $\frac{1}{4}$ in.   | 9 $\frac{1}{16}$ in. | 10 $\frac{1}{16}$ in. |
| Diameter of Canopy..... | 42 in.                | 52 in.               | 56 in.                |
| Coal Capacity.....      | 23 $\frac{1}{2}$ lbs. | 36 lbs.              | 58 lbs.               |
| Smoke Pipe.....         | 4 in.                 | 5 in.                | 5 in.                 |
| Shipping Weight.....    | 75 lbs.               | 95 lbs.              | 130 lbs.              |
| New Price.....          | \$14.75               | \$18.50              | \$22.50               |

## Buckeye Blue-Flame Colony Brooders

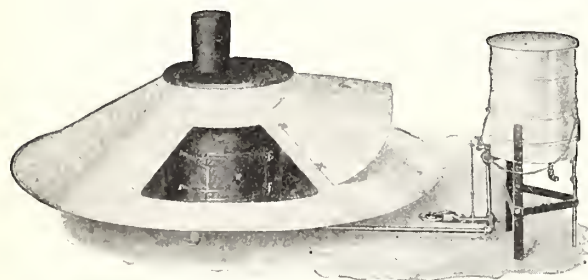
This Brooder, with the new improved burner, is the most efficient and economical oil-burning brooder in the world. Equipped with a self-feeding oil container holding one gallon. The hovers are of galvanized steel, supported by cast-iron legs, and equipped with a heating plate in the top of the canopy, increasing the efficiency of the burner. No complicated levers, valves, or thermostats. Self-feeding, self-regulating, simple, safe, durable, smokeless, odorless, and noiseless. The No. 28A and No. 29A Brooders are equipped with the Giant Buckeye Burner which will furnish an abundance of heat for the baby chicks in any climate.



|          | Capacity   | Diam.  | Shipping weight | Price   |
|----------|------------|--------|-----------------|---------|
| No. 27A. | 200 chicks | 34 in. | 36 lbs.         | \$16 75 |
| No. 28A. | 350 chicks | 42 in. | 44 lbs.         | 19 50   |
| No. 29A. | 500 chicks | 52 in. | 55 lbs.         | 21 00   |

## The Buckeye Improved "Rite-Heat" Brooder

IS THE GREATEST OIL-BURNING BROODER EVER DEVELOPED



A Brooder that will take care of baby chicks in large numbers just as satisfactorily and under the same wide range of conditions as secured with Buckeye Coal-Burning Brooders. It can be operated at almost any temperature and depended upon to supply the correct amount of heat for brooding purposes. There is no limit to the heat it can produce and will care for chicks in a room of any size or temperature. Large Capacity—Simple—Efficient—Economical—Low Oil Consumption—Dependable Regulation.

The burner is made of cast iron and consists of only three pieces. The burners are complete assembled and attached to stove before leaving factory.

Only necessary for operator to connect stove with oil container, place the canopy over the stove, and the brooder is ready to work.

The oil container has capacity of four gallons—sufficient for 24 hours under any weather conditions. Less oil in moderate weather.

### ACTUAL RATING

"Rite-Heat" Brooders are made in two sizes, with 48-inch and 62-inch canopies, rated at 500 and 1,000 chicks respectively.

|          | Capacity     | Diameter of canopy | Shipping weight | Price   |
|----------|--------------|--------------------|-----------------|---------|
| No. 103. | 500 chicks   | 48 in.             | 108 lbs.        | \$26 50 |
| No. 104. | 1,000 chicks | 62 in.             | 118 lbs.        | 31 50   |

# Newtown Colony Brooders

**WILL RAISE EVERY RAISABLE CHICK—ASK ANY OWNER**

The Newtown Coal-burning Brooder has the reputation of being the most efficient Brooder made. It needs no introduction to poultrymen. It was the first coal-burning, self-feeding, self-regulating Colony Brooder put on the market, having been longer in use than any other of its type. It is giving efficient service in every State in the Union and eleven foreign countries, and represents the modern up-to-date brooder in the highest form of development. It is durable, easy to operate, safe, economical, and labor-saving.

**Construction.** Made of best-grade, heavy, heat-retaining castings.

**Easy to Operate.** Nothing complicated—full instructions furnished with each Brooder. Automatic regulator controls the drafts and no change in weather is too sudden for its adjustment.

**Safe.** Hot coals cannot roll out of the ash-pit door into litter. Has a double bottom, with dead-air space, and a heavy metal casting which prevents chicks from scratching litter against the hot fire-bowl.

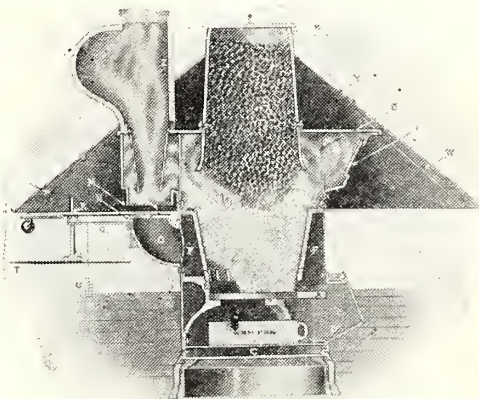
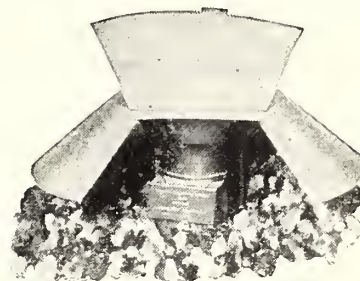
**Economical.** Built to last a lifetime. Fire-pot and combustion chamber designed to burn all gases, greatly reducing fuel cost.

**Labor-Saving.** Requires little attention. Magazine holds sufficient fuel to last 24 to 36 hours. Turning one small adjusting nut enables one to secure any desired temperature. Deflector is not disturbed in coaling. Hinged deflector lid gives easy access to ash-pit door. Smoke-box ell prevents soot or other foreign matter from falling down smoke-pipe and interfering with draft regulation.

## Big Exclusive Features

Note the cross section view of the Newtown Coal Brooder opposite. There is no Brooder on the market which can be compared in any way to this one. When you think of these features you can see how Newtown is built to brood chicks under every emergency. It cares for all your chicks regardless of weather conditions; burns a good grade of soft coal satisfactorily, as well as hard coal; holds the fire and does not require constant attention. You don't have to get up at night to see if your chicks have enough heat. They're always safe and warm with Newtown.

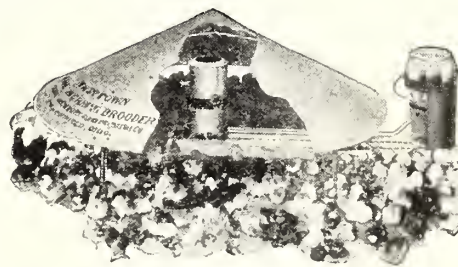
| Model   | Chick Capacity | Coal Capacity | Diam. of Hover | Diam. of Grate | Weight Crated | Price   |
|---------|----------------|---------------|----------------|----------------|---------------|---------|
| No. 7.  | Up to 300      | 37 lbs.       | 48 in.         | 11 in.         | 170 lbs.      | \$25 00 |
| No. 11. | Up to 500      | 43 lbs.       | 50 in.         | 11 in.         | 220 lbs.      | 32 50   |
| No. 12. | Up to 1,000    | 62 lbs.       | 56 in.         | 15 in.         | 306 lbs.      | 40 00   |



## The Newtown Blue Flame Brooder

This Brooder has been especially designed for late winter and spring brooding where houses are well constructed and temperature does not go below the freezing-point. It is economical to operate, easily controlled, and has proven most successful in the hands of thousands of poultry-raisers. This Brooder sold on 30-day money back guarantee.

| Model    | Chick Capacity | Diam. of Canopy | Price   |
|----------|----------------|-----------------|---------|
| No. 500. | 200            | 34 in.          | \$16 75 |
| No. 501. | 350            | 42 in.          | 17 50   |
| No. 502. | 500            | 52 in.          | 18 50   |



**ASK FOR SPECIAL CATALOGUE OF NEWTOWN BROODERS**

**Hard Coal for Brooder Stoves.** We furnish Chestnut-size Hard Coal, suitable for Brooder Stoves, put up in 100-lb. bags at \$1.35 per bag, f.o.b. Pittsburgh. Prices subject to market change. See page 183 for prices on pipe and other supplies for Coal-burning Brooders.

## Buckeye Electric Brooders

After four years' experimental and development work, the Buckeye Electric Brooder has been perfected. Poultrymen can now secure a Brooder heated by electricity that will give them maximum of brooding satisfaction without the disadvantages common to other Brooders of this type. Accurate—dependable electric switch controls the turning on and off of current.

No sticking or burning out of contact points. Sure—safe—reliable.

### RATED ACTUAL CAPACITY

Buckeye Electric Brooders are made in four sizes and will actually take care of the quantity of chicks specified. Compare the diameter of Buckeye canopies and chick-rating with competitive Brooders. Buckeye gains by comparison.

|         | Chick capacity | Diam. of canopy | Price   |
|---------|----------------|-----------------|---------|
| No. 90. | 50             | 26 in.          | \$14 50 |
| No. 91. | 100            | 36 in.          | 19 75   |
| No. 92. | 200            | 46 in.          | 24 75   |
| No. 93. | 300            | 56 in.          | 29 50   |



### GUARANTEE

Buckeye Brooders are guaranteed to be exactly as represented, and to do everything we claim for them. They are guaranteed to do everything that any other Brooder will do—and do it better. That's a pretty broad guarantee, but we mean every word of it. Buckeye Brooders are the greatest brooding device ever invented and we are ready to prove it by permitting you to **write your own money-back guarantee**. We will permit you to try any size Buckeye Brooder for 30 days under any kind of guarantee you care to write, and return your money without argument if you are not entirely satisfied.

(Signed) THE BUCKEYE INCUBATOR COMPANY

ASK FOR THE NEW BUCKEYE CATALOGUE

## *Lectro-hatch* ELECTRIC BROODERS



***It's all Brooder—No lamp, no stove***

ASK FOR SPECIAL CIRCULAR

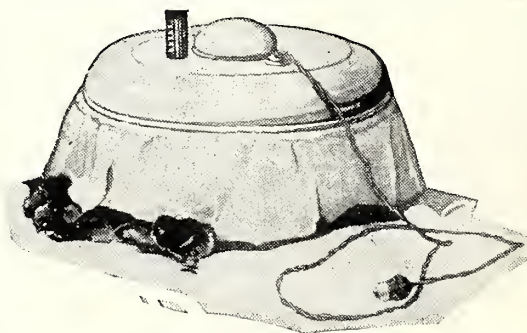
Very easy and simple to operate. Connect the Lectro-hatch Brooder to any electric light socket and turn an adjusting nut until the thermometer shows just the temperature you want. Night or day, the temperature in your brooder never changes, but holds steady and even, right where you set it. Pure air, unchanging heat, and no crowding will prevent a big part of your usual chick losses. And every chick will be healthier and will develop more rapidly. You will have more and better fowls. Costs no more than burning oil and usually less. Strongly built of heavy galvanized iron with heavy felt curtain thoroughly insulated to prevent wasting of heat, the Brooder will give a lifetime service of complete satisfaction. Sturdy, attractive, durable, and economical.

|                               |         |
|-------------------------------|---------|
| 150-chick size (28-in. diam.) | \$18 00 |
| 500-chick size (40-in. diam.) | 23 50   |

### POULTRY BOOKS

SEE PAGE 207 FOR OUR LIST OF POULTRY BOOKS

## OAKES ELECTRIC HOVER

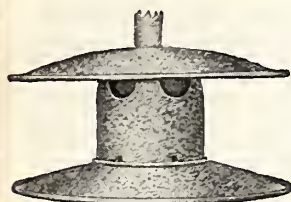


A very simple, low-priced Brooder that will give excellent satisfaction. Does away entirely with lamps and fire-hazard. Gives just as good results in raising chicks as the Oakes Electric Hen does in hatching them. Furnished complete with automatic regulating attachments, brooder thermometer, curtain and legs. Works on either 32-volt, 110-volt, or 220-volt current. *Be sure to specify current and voltage.*

No. 89. 22-inch Hover (75 to 100 chicks), weight 18 lbs. \$16.50, postpaid \$16.80.

### BABY CHICKS

We make a specialty of furnishing our customers with Day-Old Chicks of all leading breeds, from high-bred stock. Beginning early in March, we receive daily shipments from nearby hatcheries. When you are ready to place your order for chicks, let us know the breeds, the number of chicks, and the delivery desired, and we will quote you prices. Also pullets in the fall and early winter.



### Putnam Brooder Heater

*"Burns 10 days without attention"*

The Putnam Brooder Heater is the heating plant for the Putnam Home-Made Brooder. Directions for making this brooder at trifling cost are packed with every Heater.

Anyone can build one in an hour or so with no tools but saw and hammer. It will care for 35 to 60 chicks. The Heater is made entirely of brass and galvanized iron and is practically indestructible. It holds one quart of oil and burns from eight to ten days without refilling or any other attention. The Heater cannot be blown out by a hurricane. It is fire-safe and fool-proof. Tens of thousands of Putnam Brooders have been built and used with success.

Price \$4.75, postpaid

### Little Putnam Stove

*"Burns a month without attention"*

The Little Putnam Stove is used under the drinking vessel in the poultry-house to keep the water from freezing during the winter months. It is also used as the heat element in the Putnam Home-Made Oat Sprouter. It is 8 inches in diameter and 4 inches high and is made of galvanized iron and equipped with a burner which embodies an entirely new principle in oil combustion. The oil tank holds three pints of oil and burns three to four weeks without refilling or any other attention. The wick never needs trimming. Full directions for making a home-made Oat Sprouter at trifling cost furnished free with every Little Putnam Stove.

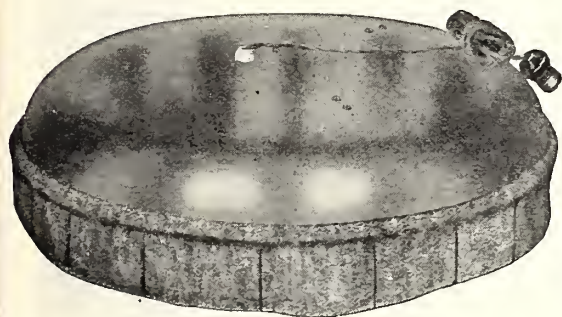
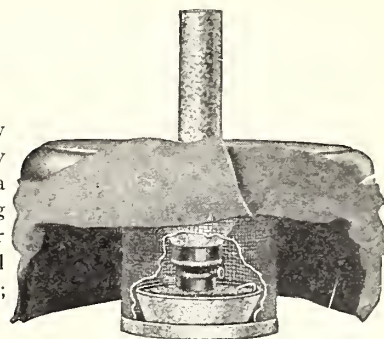
Price \$1.95, postpaid



### The Grey Hen Lamp Brooder

A FAVORITE OF MANY YEARS' STANDING

Equipped with Simplex Burner which is the best obtainable and large in size so that a low flame is sufficient. Smoking of the burner, which is always caused by too high a flame, is thereby eliminated. The flame can be conveniently adjusted without lifting the Brooder and a mica window in the top enables the operator to observe it. The top section is all metal, consisting of two walls, between which the heat from the lamp circulates. This gives a uniform heat over the entire brooding space and prevents crowding. The slitted curtain of heavy double flannel can be removed when desired. Diameter of the brooder is 17 inches. 60-chick capacity, \$4; postpaid \$4.25.



### The MaKomb Jr. Electric Brooder

A SIMPLE, PRACTICAL BROODER FOR SMALL FLOCKS

The best low-priced Electric Brooder; uses ordinary lamp bulb, attaches to any socket. The Jr. is entirely practical despite its low price. Using only a 40-watt bulb it will maintain brooding temperatures when the outer air drops as low as freezing. For general use, a 25-watt bulb will be found quite sufficient. The die-drawn shell of heavy steel is attractively enameled and insulated with a full thickness of Celotex. Steel legs support the brooder and a circulating drum of galvanized steel encloses the bulb, preventing glare and inducing a free movement of air throughout. The double curtain is of heavy flannel, slitted to allow ready movement of the chicks, and is easily detached for cleaning. Furnished with 10 feet of cord and screw plug, but without bulb. Diameter 23 inches. 80-chick capacity, \$3; postpaid \$3.20.

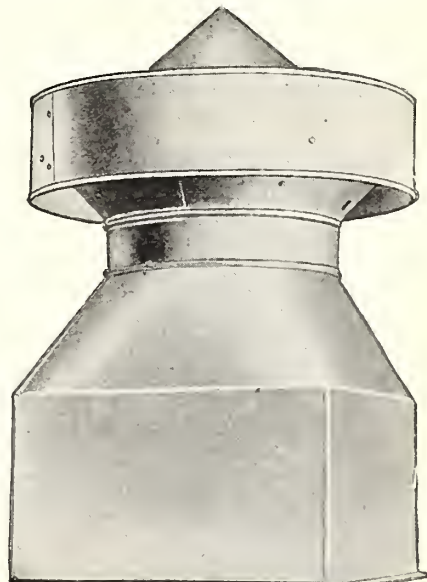
The best low-priced Electric Brooder; uses ordinary lamp bulb, attaches to any socket. The Jr. is entirely practical despite its low price. Using only a 40-watt bulb it will maintain brooding temperatures when the outer air drops as low as freezing. For general use, a 25-watt bulb will be found quite sufficient. The die-drawn shell of heavy steel is attractively enameled and insulated with a full thickness of Celotex. Steel legs support the brooder and a circulating drum of galvanized steel encloses the bulb, preventing glare and inducing a free movement of air throughout. The double curtain is of heavy flannel, slitted to allow ready movement of the chicks, and is easily detached for cleaning. Furnished with 10 feet of cord and screw plug, but without bulb. Diameter 23 inches. 80-chick capacity, \$3; postpaid \$3.20.

### Ney Bird Ventilator

FOR POULTRY-HOUSES, HOG-HOUSES, AND OTHER SMALL HOUSES

This Ventilator has a 12-inch stationary head, designed especially for smaller houses, where ventilation is just as important as in larger barns and poultry-houses. It is a correct Siphon Ventilator, well made of sheet steel and galvanized. It may be used over an interior ventilating system, or it may be used alone, and it will serve the purpose better than anything else ever devised. It fills the demand for a good Ventilator at a lower price. Base 16 inches square, height 28 inches over all, weight 13 lbs. \$8.

Prices on larger Ventilators and Ventilator Systems quoted on request.





No. 80

## Double-Quick Grain-Sprouter

For Use in Freezing Temperatures. Produces the Vapor-Bath Sprout

Outside cypress wall insulated with rosin board and asbestos to retain heat. Inside galvanized steel grain-chamber. Lamp-heat passes up between the metal and the wood walls. Utilizes all the heat. Takes but little oil in lowest temperatures. The water-pan above the lamp creates the vapor that bathes the grain in warm moisture, thus producing the highly edible vapor-bath sprouts. Fitted with drain-tube for water overflow, a ventilation system to keep down mold, glass doors to stimulate growth and produce chlorophyll in the sprouts, removable top, etc. The entire machine is made of first-class material, is finished in the natural colors of the cypress, makes a nice piece of furniture, and is without doubt the most economical and efficient Sprouter now manufactured. Nos.



No. 160

160 and 256 have double sets of trays so that no tray when full of green oats is so heavy but that it can be handled by a woman.

| No.     | Capacity   | Price   | No.      | Capacity                                | Price   |
|---------|--|---------|----------|---|---------|
| No. 24. | 24 qts. ( $\frac{3}{4}$ bus.) for 75 to 100 hens   | \$18 00 | No. 160. | 160 qts. (5 bus.) for 500 to 600 hens   | \$49 00 |
| No. 40. | 40 qts. ( $1\frac{1}{4}$ bus.) for 125 to 175 hens | 24 00   | No. 256. | 256 qts. (8 bus.) for 800 to 1,000 hens | 72 00   |
| No. 80. | 80 qts. ( $2\frac{1}{2}$ bus.) for 250 to 325 hens | 36 00   |          |   |         |

## Feed Sprouted Oats for Winter Eggs

To get eggs in winter, feed sprouted oats. For prolific egg-production any season, there is no feed better or cheaper than the sprouted grains. When properly sprouted they afford not only the green forage the hens so much need, but they contain the valuable diastase, also the grape sugar, the "vegetable milk," and other easily digested and highly nutritious elements so essential in egg-production. It matters not on what ration the hens are fed, an increased egg-yield always results when sprouted oats are added.

### WHEN AND HOW MUCH TO FEED

Best results are had when sprouts are 2 to 4 inches long. If hens are simply to be kept in good condition during winter for heavy spring laying, feed very sparingly. But for eggs, feed the hens every day all the sprouts they will eat. See that your Sprouter has a capacity of 1 bushel, or 32 quarts, for every 100 hens. By running a 1-bushel size at full capacity, putting in a few quarts each day of fresh oats as the sprouts are fed, a flock of 100 hens may be fed sufficient sprouts to produce eggs.

## Premium Metal Sectional Sprouter

FOR USE IN MODERATE TEMPERATURES. PRODUCES VAPOR-BATH SPROUTS

The Premium is constructed of galvanized sheet steel strengthened by an outside cypress frame-work. The metal will last for many years while the cypress is the "wood eternal." The Premium incorporates all the essentials of a vapor-bath Sprouter, such as a heater, vapor-pan, glass doors, ventilation, removable top; overflow tube, etc., and produces the vapor-bath sprouts. To be used in basement, cave, kitchen, or where the temperature does not run much below freezing.

The Premium is built on the sectional plan—buy what you now need and afterward add sections. Sections fit with telescope joint and stay on. Two base sizes are provided, the Small Base holding  $\frac{1}{2}$  bushel and each of its sections  $\frac{1}{2}$  bushel; the Large Base holding  $1\frac{1}{2}$  bushels and each of its sections 1 bushel.



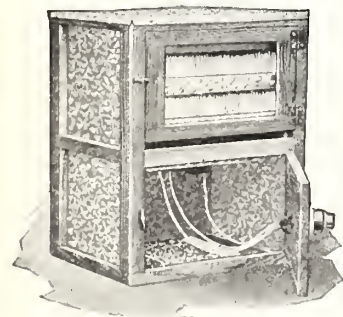
SP2S

| Capacity   | Price   | Capacity  | Price   |
|--|---------|---|---------|
| SP. 16 qts. ( $\frac{1}{2}$ bus.) for 50 to 70 hens      | \$10 00 | LP. 48 qts. ( $1\frac{1}{2}$ bus.) for 150 to 200 hens    | \$18 00 |
| SP1S. 32 qts. ( $1$ bus.) for 100 to 140 hens            | 15 00   | LP1S. 80 qts. ( $2\frac{1}{2}$ bus.) for 250 to 325 hens  | 25 00   |
| SP2S. 48 qts. ( $1\frac{1}{2}$ bus.) for 150 to 200 hens | 19 50   | LP2S. 112 qts. ( $3\frac{1}{2}$ bus.) for 350 to 425 hens | 31 50   |
| SP3S. 64 qts. ( $2$ bus.) for 200 to 275 hens            | 23 50   | LP3S. 144 qts. ( $4\frac{1}{2}$ bus.) for 450 to 550 hens | 37 50   |
|  |         | LP4S. 176 qts. ( $5\frac{1}{2}$ bus.) for 550 to 675 hens | 43 00   |

Ask for special circular giving valuable information in regard to feeding sprouted grains



LP4S



## Close-to-Nature Electric Grain-Sprouters

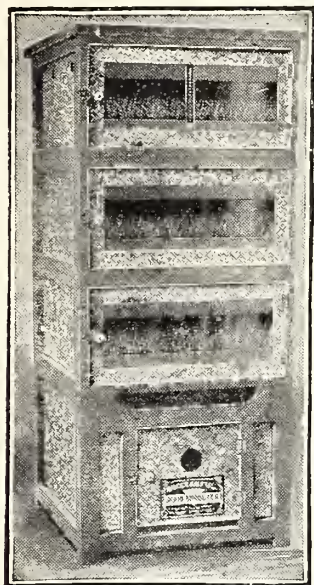
A Sprouter heated by electricity is one of the modern conveniences connected with getting eggs in cold weather. Requires less attention than any other kind, and delivers the same high-quality vapor-bath sprouts as do our oil and gas-heated types.

Each Sprouter is fitted with a three-stage heater—low, medium, and full. In moderate weather, or when the Sprouter is used in a room of moderate temperature, the "low" is sufficient. The fact is, the "low" is usually all that is needed, and especially when the capacity is only 8 to 16 quarts. When the 24 or 32-quart capacity is used, more heat may be required, but seldom is more needed than "medium," except in cases of extreme low temperature.

The Sprouter may easily be changed to use a lamp instead of the electric heater in case you wish to make the change. The cost of operating is small, depending on the price of the electricity in your vicinity. The amount of heat required will vary with conditions of weather and protection of the Sprouter, yet at no time is the cost more than nominal. As a rule only the "low" is used, which makes the cost insignificant.

Constructed on the sectional plan. The heater section contains three sprouting-trays of same total capacity of 8 quarts, while each section contains three trays of same total capacity.

| Capacity                         | Price   | Capacity                           | Price   |
|----------------------------------|---------|------------------------------------|---------|
| No. A. 8 qts. for 25 to 35 hens  | \$12 00 | No. C. 24 qts. for 75 to 100 hens  | \$18 00 |
| No. B. 16 qts. for 50 to 70 hens | 15 00   | No. D. 32 qts. for 100 to 150 hens | 21 00   |



## "Successful" Grain-Sprouter

The feeding of sprouted oats is highly endorsed by the poultry experts of the agricultural experiment stations, because grain fed in a sprouted condition is easily digested, goes three times as far, and is therefore much cheaper and better than when fed in a dry condition.

You can make your hens lay 40 to 50 per cent more eggs. You can reduce the cost of feeding 25 to 30 per cent by giving them SPROUTED OATS easily and quickly produced in the

### "Successful" Grain-Sprouter

Made in Sections—Double Steel Walls—Fireproof—Safe to Use Anywhere in the House.

The most profitable appliance for poultry-raising since the invention of the incubator.

Manufactures for you in a week's time the best green egg-making feed at 15 to 18 cts. per bushel.

Takes but 15 minutes a day to attend to.

Costs but one-half cent per day for kerosene.

This succulent, nutritious, green feed will turn your hens from idle feed consumers into industrious egg-producers at a time when it takes but one dozen of eggs to bring as much money as two or three dozen in spring or summer.

All our Sprouters have a hinged top, permitting the operator to sprinkle the grain from above in one operation. The water percolates through all the trays. This is a great labor-saving device and practically eliminates any kind of a muss-up.

### PRICES AND CAPACITIES

|   |  |                            |         |
|---|--|----------------------------|---------|
| No. 1. Base and 1 section;                                      | 2 trays; holds 8 to 10 quarts dry grain.   | (For 30 to 60 hens).....   | \$12 00 |
| No. 2. Base and 2 sections;                                     | 4 trays; holds 16 to 20 quarts dry grain.  | (For 75 to 100 hens).....  | 15 00   |
| No. 3. Base and 3 sections;                                     | 6 trays; holds 24 to 30 quarts dry grain.  | (For 130 to 200 hens)..... | 18 00   |
| No. 4. Base and 4 sections;                                     | 8 trays; holds 32 to 40 quarts dry grain.  | (For 250 to 350 hens)..... | 21 00   |
| No. 5. Base and 5 sections;                                     | 10 trays; holds 40 to 50 quarts dry grain. | (For 400 to 600 hens)..... | 24 00   |
| Each additional section and two galvanized all-steel trays..... |  |                            | 4 50    |

## Moe's Lampless Oat Sprouter

Made entirely of metal. Strong and rigid.

Provides the very necessary green feed at all seasons. Healthy chickens and more eggs.

The frame is of steel, well braced and neatly painted. Has six heavy galvanized iron pans. Five of the pans have perforated bottoms to secure the proper drainage, and the bottom pan is solid to hold the drippings. Pans are interchangeable. Sectional frame can be quickly taken apart and stored in a small place.

Total height of frame 3 feet. Size of pans 16 by 18 inches.

Price, No. 110, \$6, postpaid \$6.35.



## Banner Root Cutters for Poultry

Indispensable to the Hen Man, Duck Man and Broiler Man. Solves the problem of an article always in demand at good prices: "WINTER EGGS."

Reduces cost of feeding, increases production, and is always a medium, right at hand, to give the poultry, in proper shape for consumption, the most economical winter food known—ROOTS AND VEGETABLES.

### No. 7. Exclusively for Poultry

It cuts fast and is easy running. Leaves the feed in fine, brittle, ribbon-like strips that make choking impossible. Fowls large or small can safely eat the feed. The knives are adjustable and made of the very best of steel. An iron grate in bottom of hopper lets dirt and gravel escape before reaching the knives. Two to five minutes will cut enough feed for a large flock of birds.

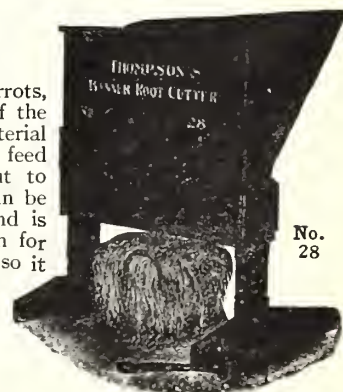
Price \$7.50

### No. 28. For Poultry or Cattle

Large Capacity. Hand or Power Use

The No. 28 cuts all roots and vegetables, like beets, carrots, potatoes, onions, apples, turnips, cabbage, or anything else of the same nature, into ribbons, literally shredding the material into feed cut so fine that all stock and poultry can feed without danger of choking. Built strong and stout to stand power use, and furnished with a crank so it can be used by hand also. Cutter has a large capacity and is supplied with eight steel knives. It cuts fine enough for sheep, lambs, and fowls and still has ample capacity so it can be used to cut for cattle also. Running the knives one way it shreds the roots and by reversing the knives it will cut in flat slices. Weight of machine, complete, 180 pounds. Capacity of hopper, about 2½ bushels.

Price \$37.50



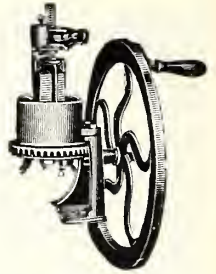
## Mann's Green Bone-Cutters

THE LAYING HEN IS THE PAYING HEN

The poultry-raiser wants eggs, and wants them when eggs are worth the most. Green bone and raw meat produce them. There is no doubt about that. Experience proves it; science shows why.

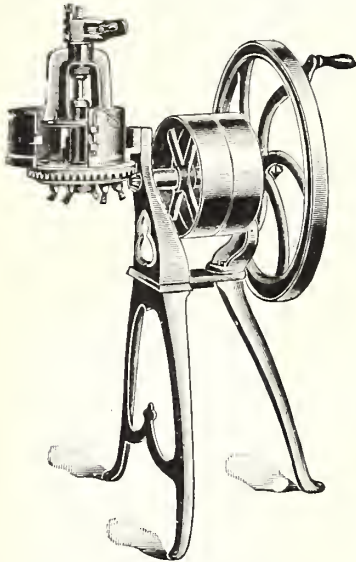
The hen will do her part if you give her a chance. The Mann's Bone-Cutter gives you a chance to give her a chance. It gives you a better chance than does any other bone-cutter.

Mann's Green Bone-Cutters have been sold for the past twenty-five years, and there are more of them in use today than of all other makes combined. We have sold them for many years and have yet to find a dissatisfied customer. Every machine is guaranteed, and must do the work.

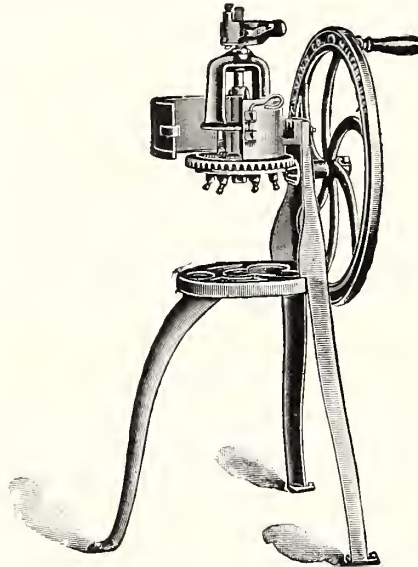


No. 5-B. This Hand Bone-Cutter is designed for the small poultryman with flocks of 15 to 25 hens; can be used for 50. Weight 60 lbs. Price \$15.

Send for complete Catalogue if you wish to know more about them

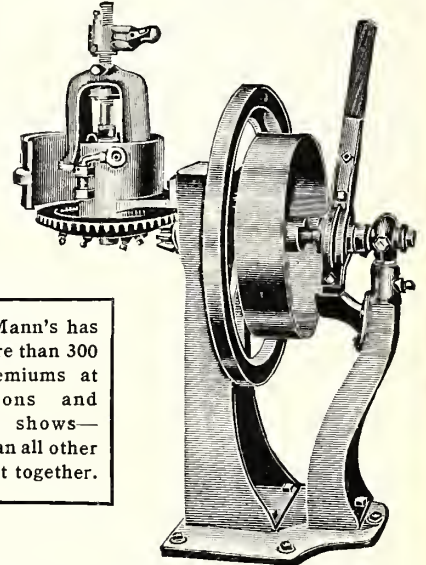


No. 7 1/2. Combination Hand and Power Bone-Cutter. Can be run either way without change of parts. Weight 140 lbs. Price \$28.



No. 7. Hand Bone-Cutter designed for flocks of 25 to 100. Weight 107 lbs. Price \$19.75.

The Mann's has won more than 300 first premiums at expositions and poultry shows—more than all other types put together.

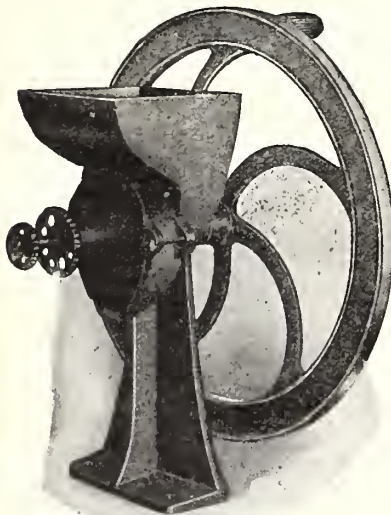


No. 12. An ideal all-power Bone-Cutter where large quantities of bone are to be cut. Capacity from 120 to 150 pounds per hour. Weight 261 lbs. Price \$65.

Catalogue and prices of larger sizes sent on request

## Stover Hand Grinding Mill

In this Mill are embodied all the good features of other hand grinding Mills to which have been added universal burrs or grinding plates that are adjustable for grinding coarse or fine. This machine grinds oats, barley, rye, corn, peas, dry bone, shells, etc., for feeding to poultry. It is a well-designed machine, is strong and well made throughout and of excellent finish, has a 16-inch fly wheel and is light running.



No. 32. Stover Hand Mill

No. 32. Hand Power, capacity 1 to 2 bushels per hour, \$5; postpaid \$5.50.

No. 35-B. Hand and Power, capacity 2 to 4 bushels per hour, \$8.50.

Extra Grinders for No. 32, 75c., ppd. 80 cts.; No. 35-B, \$1, ppd. \$1.05.

## Black Hawk Grist Mill

Price complete, \$3.50, Postpaid, \$3.90

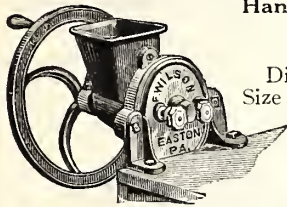


With a Black Hawk Mill you can crack corn or grind any kind of grain to whatever degree of fineness will best suit the age or condition of your fowls.

Grinds corn into meal, wheat into graham flour, rice or buckwheat into flour; in fact, an all-round household Mill that will grind fine or coarse.

Extra Grinders, per set, 60 cts. ppd.

## No. 1 Wilson's Poulterer's Mill

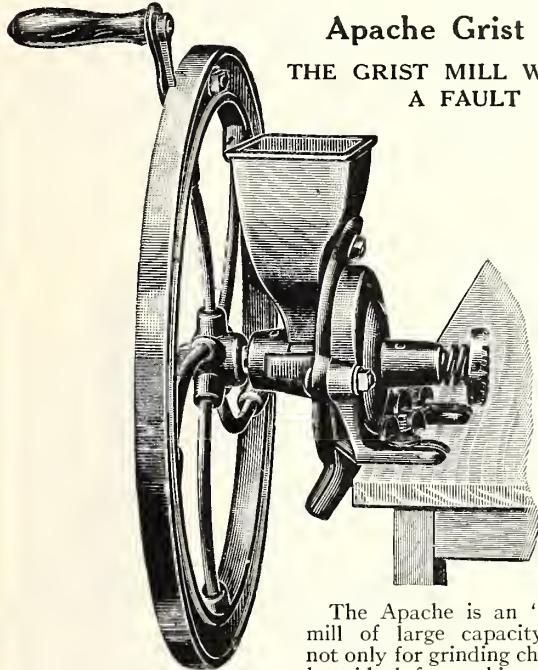


**Hand Power. For Grinding Dry Bone, Shell, and Corn for Poultry To Bolt to Bench or Table**

Diameter of hand wheel, 20 inches. Size of hopper,  $2\frac{1}{2} \times 3\frac{3}{4} \times 4$  inches.

This Mill will grind, or granulate, dry bones, oyster and clam shells, grit, gravel stones, old crockery, glass, charcoal, corn, walnuts, and all sorts of grain. Also splendid in

the house for grinding stale bread, crackers, roots, barks, etc. The grinding surfaces are made of the hardest material, and will last for years. Weight, 33 pounds. Price \$7.50.



## Apache Grist Mill

**THE GRIST MILL WITHOUT A FAULT**

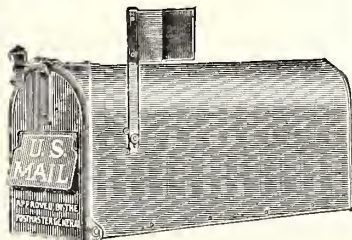
The Apache is an "all-round" mill of large capacity, suitable not only for grinding chicken-feed, but ideal for making corn-meal,

fastest grinding, and most easily operated Mill on the market. Well built and will last a lifetime. Price \$7.50.

Some of the special features of this Mill are a large fly-wheel, scientifically balanced, large hopper, ball bearings, adjustable regulator. These features make the Apache the lightest running, fastest grinding, and most easily operated Mill on the market. Well built and will last a lifetime. Price \$7.50.

## R. F. D. and Parcel Post Mail Boxes

This box possesses the highest standard of workmanship and excellence of finish. Substantial and operates perfectly. It is absolutely proof against all weather. Box is fitted with easily operated right-angle signal visible at a great distance. Made of 20-gauge galvanized sheet steel, and finished in weather-proof aluminum bronze. Approved by Postmaster-General.



No. 1. R. F. D. Size,  $18\frac{1}{2} \times 7\frac{1}{2} \times 6\frac{1}{4}$  inches...\$1 25  
No. 2. Parcel Post Size,  $23\frac{1}{2} \times 14 \times 11$  inches... 3 50

Postpaid  
\$1 40  
3 75

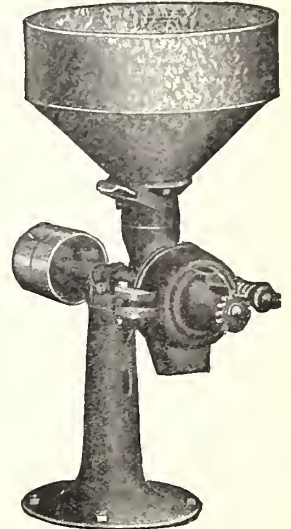
## Jumbo Power Feed Mill

**Here's a Feed Mill that Grinds Ten to Twenty Bushels of Grain an Hour. Grinds the Grain Fine and Grinds it Fast**

You can grind oats, rye, barley, shelled corn, wheat, millet, seed, salt, and bark with little power and at practically no cost. Oat hulls can be cut fine. Corn may be cracked or ground fine just as you desire. Simple screw adjustment enables you to grind grain just as fine or as coarse as your needs demand.

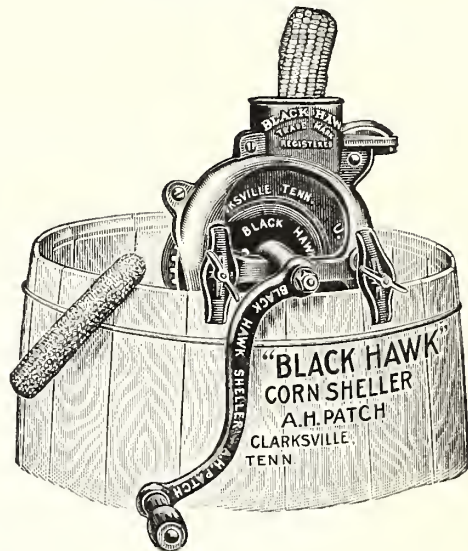
Simple as this Feed Mill is, it has a grinding capacity equaled by few. Built of steel and iron throughout, with long and well babbitted bearings. Safety springs protect burrs from nails, nuts, etc., and keep burrs apart when machine is running empty.

One set of fine burrs, also one set of coarse burrs furnished with each machine. Pulley 2 by  $3\frac{1}{2}$  inches gives proper speed for operation with any engine or light plant. Speed 290 to 1,150 R. P. M. Shaft  $1\frac{1}{8}$  inches cold rolled. Large roomy hopper. Firm, broad base. Burrs 6 inches. Weight 90 pounds. Height 33 inches. Power required  $1\frac{1}{2}$  Horse Power. Price \$12.



## Black Hawk Corn-Sheller

Price \$3.25; postpaid \$3.65



The Black Hawk Corn-Sheller has enclosed hopper and separator. This prevents scattering of the shelled corn. A wonderfully fast and easy running Sheller. Instantly fastened to barrel or box by two large strong clamps with wing nuts.

## OUR POULTRY FEEDS

Our line of poultry feeds includes everything necessary to the successful rearing of poultry—feed for the little chick, the growing fowl and the laying hen.

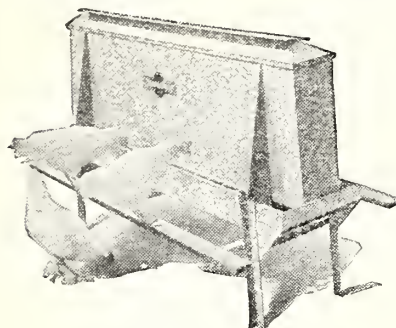
We aim to handle only "the best" and to give our customers "value received for every dollar expended."



## Jamesway Poultry Equipment

EQUIPMENT THAT MAKES BIG EGG-YIELDS

Jamesway Poultry Equipment is built for the discriminating buyer who buys equipment not because of the price, but because of the service it will render in increasing egg-yields, in keeping hens healthy and contented, and in making it easier to care for them.



### Jamesway Free Feed Cafeteria

FIVE BIG SELF-FEEDERS IN ONE

The only Feeder with a fool-proof agitator.

The only "can't clog," "no waste" Feeder on the market.

Holds 50 to 100 pounds of mash, depending on size purchased; also has grit, oyster shell, meat-scrap and charcoal compartments.

Has tilting top to prevent hens from roosting there. Built of heavy, galvanized, rust-resisting, copper-bearing sheet steel. Unquestionably the best mash hopper made.

No. 527. Length 3 ft. Capacity 50 lbs. dry mash. Self feeds 75 to 100 hens for one week with one filling. . . . . \$11 80

No. 528. Length 5 ft. Capacity 100 lbs. dry mash. Self feeds 150 to 200 hens for one week with one filling. . . . . 17 45

### Jamesway 8-Gallon Poultry-Waterer

Provides plenty of fresh, clean water for 100 to 150 hens.

Easiest Waterer to disinfect, clean, and fill.

Built of heavy rust-resisting sheet steel. A copper float opens and closes a non-rust brass valve, and keeps the water at the right level in drinking-pan.

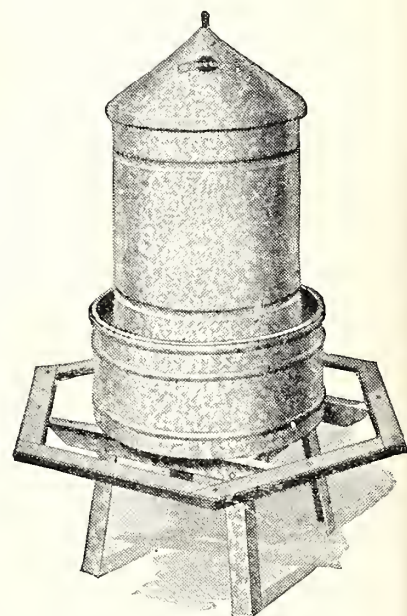
Your hens require water in winter if you want winter eggs.

No. 512-A. Lamp-heated Waterer, with Lamp. . . . . \$7 90

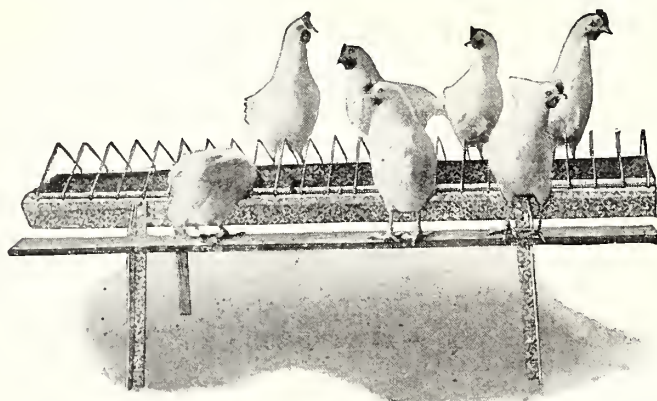
No. 513. Without Lamp. . . . . 5 90

No. 514-A. Electrically heated. . . . . 8 75

No. 545-A. Stand for above Waterer. . . . . 1 50



### Jamesway Open Mash-Feeder



Big, roomy trough for feeding dry or wet mash and green feeds.

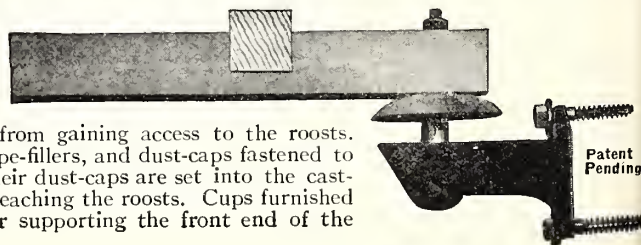
Wire guard prevents hens from getting into trough.

Wide lip on trough keeps hens from pulling out mash on floor.

No other trough like it. For feed-saving, cleanliness and real satisfaction, buy this Feeder. Length of trough 5 feet, width 20 inches over perches. Stands 25 inches high on sturdy metal legs; takes up little scratching room from the floor. No. 525-A, \$5.75.

### Jamesway Mite-proof Roost Supports

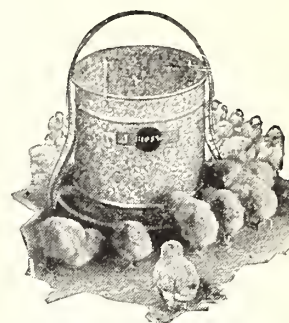
Use Jamesway Mite-proof Roost Supports and prevent mites from gaining access to the roosts. Consists of cast-iron oil-cups fastened to the wall by lag screws, pipe-fillers, and dust-caps fastened to the underside of the roost-supporting bars. The pipe-fillers with their dust-caps are set into the cast-iron oil-cups which, filled with kerosene or oil, prevent mites from reaching the roosts. Cups furnished complete with lag screws, fillers, dust-caps, chains, and S hooks for supporting the front end of the roosts from the ceiling. No. 549, \$1.50 per pair.



Patent Pending

## Jamesway Chick-Waterer

Poultry experts say this is the most satisfactory Chick-Waterer ever built. Made of heavy, galvanized, rust-resisting sheet steel. Keeps a constant supply of clean, fresh water available for the chicks. Only two parts to clean—the inverted bucket and pan. Won't tip over. Holds 1½ gallons and weighs 4½ pounds. Compare it with any other. Weight means long service. Thousands in use, and every one is giving real satisfaction. No. 507, \$1.25; postpaid \$1.40.

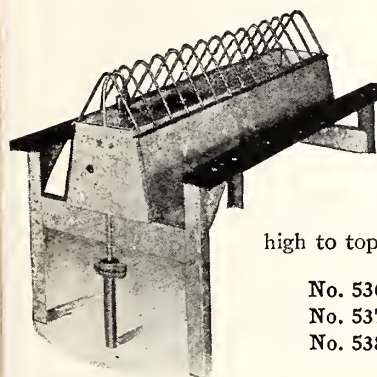


## Jamesway Bungalow Chick-Feeder

### AGITATING TYPE



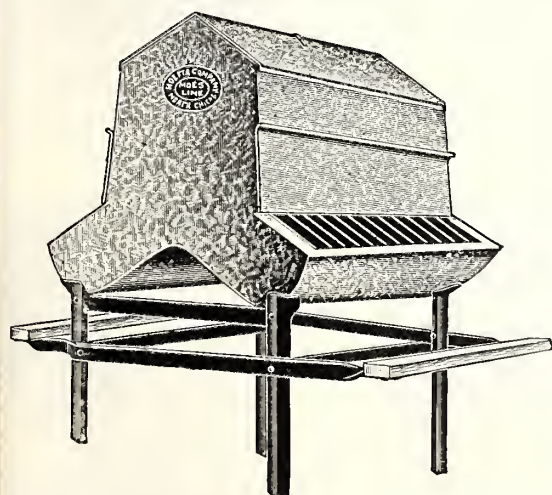
Supports keep the feed-trough up off the ground. The broad bungalow-type roof keeps the feed clean and dry. Guards prevent the chicks from getting into the trough and scratching around. Use the Jamesway and know that your chicks are getting clean, dry feed. Chicks hopping upon the feeding platform joggle the mash compartment back and forth, which rattles the feed down into the troughs. Feed Saver Pans catch all the feed chicks waste in eating. This exclusive feature will alone pay for the feeder in a season's use. Is 3 feet long and 16 inches high. It holds about 50 pounds of dry chick mash, enough to self-feed upward of 200 chicks for one week without refilling. Room along the sides permits 40 to 50 chicks to feed at one time. No. 632-B, \$7.50.



## Jamesway Pressure Waterer

Poultrymen who have running water in their poultry-houses will find this Automatic Pressure Waterer a great labor-saver. Built large enough for 150 to 200 hens. Can't overflow. Copper float and brass valve keep the water at right level. Can be adjusted to any water pressure. Wire guards keep the hens out of water. Guards tilt back for cleaning. Sets up off the floor on sturdy metal legs. The rust-resisting copper-bearing steel trough is 2 inches deep, 5 inches wide, and 35 inches long. It sets in a galvanized sheet steel base, and is 24¾ inches high to top of guards. Can be furnished with a kerosene lamp for the warming of water in winter.

|                                    |        |
|------------------------------------|--------|
| No. 536. Without lamp.....         | \$6 90 |
| No. 537. Electrically heated.....  | 8 75   |
| No. 538. Kerosene lamp heated..... | 7 90   |



## Moe's Mammoth Dry-Mash Hopper

A large capacity Hopper built on correct principles. Made of heavy galvanized iron, strong and substantial in every detail.

Has many excellent features; for instance, it will accommodate a full 100-pound bag of mash, doing away with the annoyance and waste of having a partly empty bag of mash on the premises. The feed is within easy reach of the chickens, and is protected from the weather and from the ravages of rats and mice.

The taper shape and interior construction provide a uniform automatic feed, and the wire grid and cross wires prevent any waste.

The stand is of heavy angle iron, painted, and has wooden bars for the poultry to rest on when feeding.

Length of hopper 35 in., width 21 in., height 18½ in. Capacity 100 lbs.

Height of stand 15½ in., total height 34½ in.

No. 3. Hopper and Stand complete, \$11.50.

### PROFIT FROM BEES

They require very little attention and solve their own food problems. See pages 162 and 163 and write for helpful booklets and large illustrated catalog of Bee Supplies.

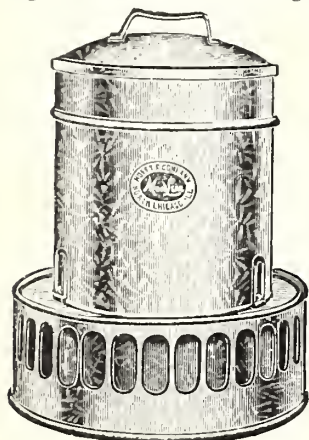
### PET SUPPLIES

DOG FOODS AND REMEDIES, BIRD SEED, ETC.

We carry a complete line and our stock is always fresh. See pages 203 to 206.

## Moe's Peerless Feeders

Intended for chicks and growing fowl. Made of heavy galvanized iron, with a large capacity and perfectly suited for either large or small flocks. The magazine or hopper is adjustable up or down for different kinds of mash and feed and can be set to feed slowly or rapidly.



Has a removable cover, so it is easy to fill, and the bottom is cone-shaped so the contents will not clog.

The slotted openings are accurately formed with turned-over edges to prevent any injury to the fowl. The vertical feeder-holes also make it impossible for the chicks to foul or waste the feed. Thirty chicks can feed at one time. Made in two sizes.

No. 192. Diameter of base 12 in. 30 feeder-holes. Diameter of magazine  $9\frac{1}{2}$  in. Total height 12 in. Capacity 10 qts. \$1.40; postpaid \$1.55.

No. 193. Diameter of base 12 in. 30 feeder-holes. Diameter of magazine  $9\frac{1}{2}$  in. Total height 18 in. Capacity 18 qts. \$1.90; postpaid \$2.05.

## Eaton's Peerless Self-Feed Hopper

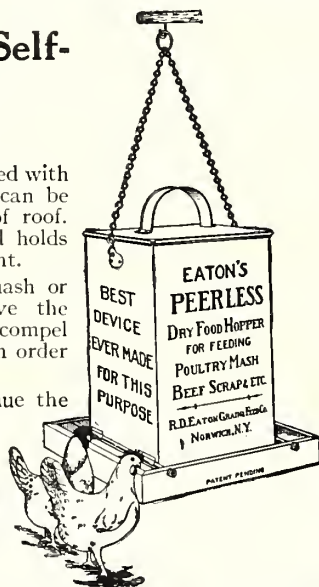
### HOW TO USE IT

An automatic pulley is supplied with every Peerless Hopper, which can be easily attached to any style of roof. This pulley grips the cord and holds the Hopper at any desired height.

Fill the Hopper with dry mash or grain, and hang it well above the floor or pen, high enough to compel the birds to arch their necks in order to reach the feed.

You cannot afford to continue the wasteful use of open boxes and pans for the feeding of poultry mash and grains.

It is the only Hopper that is absolutely rat-proof all the time, day and night, which needs no attention except re-filling when empty.



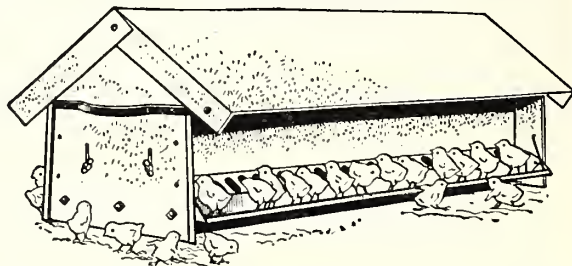
### PRICES

|                                      | Each   | Postpaid |
|--------------------------------------|--------|----------|
| 8-qt. size, for 10 to 15 birds.....  | \$2 25 | \$2 50   |
| 16-qt. size, for 15 to 30 birds..... | 2 75   | 3 00     |
| 32-qt. size, for 30 to 50 birds..... | 3 75   | 4 10     |

## DAY-OLD CHICKS

We make a specialty of furnishing our customers with Day-Old Chicks of all leading breeds, from high-bred stock. Beginning early in March, we receive daily shipments from nearby hatcheries. When you are ready to place your order for chicks, let us know the breeds, the number of chicks, and the delivery desired, and we will quote you prices. Also pullets in the fall and early winter.

## Adjustable Dry-Mash Feeder



"One feeder does the work of three." It is just as practical for the growing flock and matured fowls as for the baby chicks. A handy quick adjustment makes this possible. Made of heavy galvanized iron; adjustable steel legs. Feeds from both sides—has 5 feet of feeding-space. Holds more than a bushel. No. 35, \$6.50.

## "Bar-Nun" Dry-Mash Hopper

It Saves the Feed. Holds 15 quarts

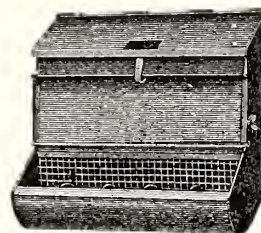
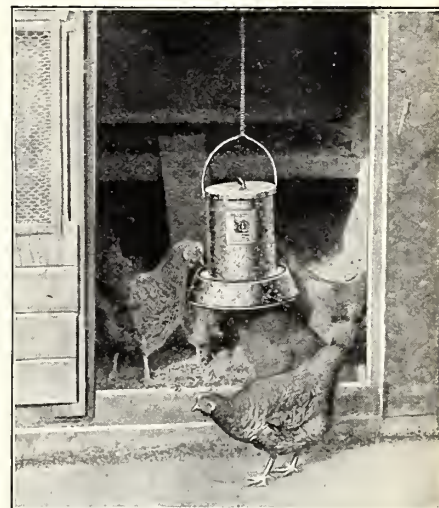
It is inaccessible to rats or mice, yet easily accessible to poultry at all times. By its use, a constant supply of fresh, clean feed is always kept before them.

Used suspended by a spiral spring; furnished with hopper; clogging or packing of feed is prevented. The mash feeds down automatically as the poultry pick it away from the trough.

Poultry cannot perch on it or scratch mash out of it. Simply hang the hopper so that the birds have to reach up to pick out of the trough; this gives a clear floor-space and prevents them from picking over the mash.

Note the inward-sloping sides of the feed-pan—an exclusive feature of the "Bar-Nun" Hopper.

Price \$2.75; postpaid \$3



## Improved Handy Hopper

The Improved Handy Hopper is made of galvanized iron throughout. All parts are spot-welded together. It is provided with hinged lid over both hopper and trough,

making it rat- and mouse-proof, as well as dirt-proof.

It is provided with a swinging front, adjustable to suit any kind of dry mash and which eliminates any possibility of clogging.

Hopper is 15 inches in height,  $4\frac{1}{2}$  inches in width, and made in four lengths.

### PRICES

|                           | Each   | Postpaid |
|---------------------------|--------|----------|
| B 12. 12 inches long..... | \$1 75 | \$2 00   |
| B 13. 18 inches long..... | 2 25   | 2 50     |
| B 14. 24 inches long..... | 2 75   | 3 10     |
| B 15. 36 inches long..... | 3 90   |          |

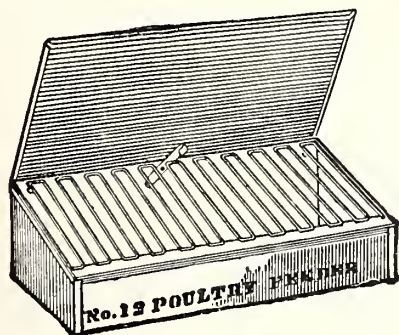


### Moe's Dry Mash Hopper

The curved bottom of the Hopper keeps the feed within easy reach of the birds. The gradual enlargement from the top to base prevents clogging. The wire grid and the wires running from the flange through the wire grid prevent any chance of the fowls throwing out or wasting the feed. The sloping cover prevents the birds from roosting on the Hopper, and when both covers are closed, it is rat- and mouse-proof. A trial will convince you that it is a Hopper of the greatest merit. Manufactured of heavy galvanized iron in four sizes.

|                                    | Each   | Postpaid |
|------------------------------------|--------|----------|
| No. 35. 8½ inches wide—10 qt. .... | \$1 50 | \$1 70   |
| No. 36. 12 inches wide—14 qt. .... | 1 75   | 1 95     |
| No. 13. 18 inches wide—22 qt. .... | 2 25   | 2 50     |
| No. 37. 24 inches wide—32 qt. .... | 2 60   | 2 85     |

### Felker's Dry Mash Feeder



These Feeders are dirt- and rat-proof, and are protected from waste by an especially designed grid. Should be hung on the wall by two nails, as high as the fowl can reach with ease.

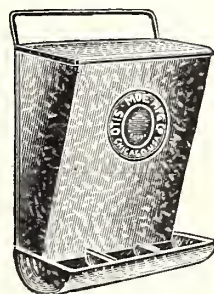
|              | Each   | Postpaid | Each         | Postpaid |
|--------------|--------|----------|--------------|----------|
| 12-inch..... | \$0 75 | \$0 90   | 24-inch..... | \$1 15   |
|              |        |          |              | \$1 40   |

### Moe's Grit and Shell Box

The feeding of grit, ground shells, and charcoal is now recognized as an essential part of the diet, to keep fowls in healthy, prime condition.

Can also be used as feed-hoppers for little chicks.

Made of heavy galvanized iron in three sizes. The No. 45 for baby chicks has a square bottom, the other sizes have round bottoms. No solder used in their construction.



#### PRICES

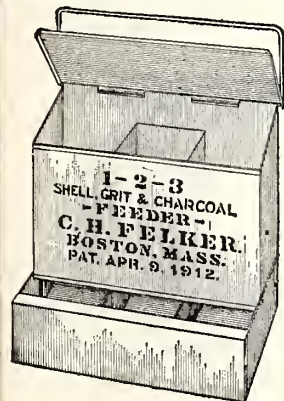
| Compartments      | Each   | Postpaid |
|-------------------|--------|----------|
| No. 45. Two.....  | \$0 40 | \$0 50   |
| No. 9. Three..... | 80     | 95       |
| No. 90. Four..... | 1 00   | 1 15     |

### The 1—2—3 Shell, Grit and Charcoal Feeder

Holds about three quarts

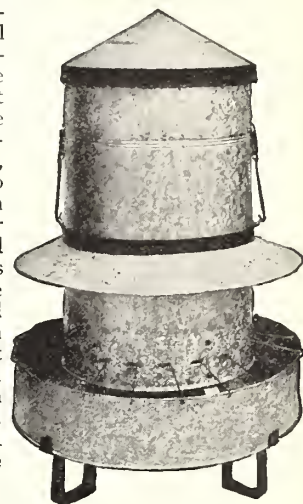
A very convenient size for a pen of fowls. Will serve for one, two or three kinds of feed by using the separator.

Price 75 cts., postpaid 90 cts.



### Felker's Giant Mash Feeder

Every poultry-raiser will be interested in the new mechanical features of this Feeder. A continuous flow of mash into feeding-space is assured by an entirely new but simple mechanical principle. The fowls, when feeding, come in contact with a series of movable wires, the least jarring of which tends to loosen any clogging of the feed in its downward flow. The circular feeding-space of nearly 7 feet will accommodate twice as many fowls as if in a straight line. Its large capacity and the automatic control reduces the amount of attention needed to a minimum and makes it a wonderful labor-saver. Hood can be lowered to protect feed from rats, mice, birds and weather. Assembled and ready for use with stand the correct height for the average-size fowl. \$10.



### Moe's Sanitary Feeding Trough FOR GROWN FOWLS

Suitable for dry feed, wet mash, or water. The top slides off, so the pan can be easily cleaned, and filled. Made of best quality galvanized iron. The feed saved by using Moe's Troughs will more than pay their cost in a short time.

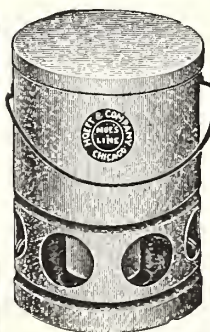


|                             | Each   | Postpaid | Doz.   | Postpaid |
|-----------------------------|--------|----------|--------|----------|
| No. 22. 18 inches long..... | \$0 40 | \$0 50   | \$4 25 | \$4 55   |
| No. 23. 24 inches long..... | 60     | 70       | 6 50   | 6 90     |

### Moe's Pigeon Feeders

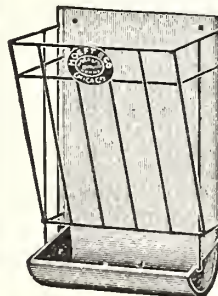
Made of heavy galvanized steel, with feeding-holes properly spaced all around the hopper. The hopper has a slanting bottom leading through a large tube to the feeding-bottom. This feeding-trough or bottom is also made on a slant, causing the birds to reach for the feed and preventing them from billing it out and wasting it. A practical, economical Feeder which will soon save its cost.

|                              | Each   | Ppd.   |
|------------------------------|--------|--------|
| No. 105. Capacity 3 qts..... | \$1 00 | \$1 10 |
| No. 106. Capacity 6 qts..... | 1 25   | 1 40   |



### Stoneware Rabbit Feeder

|              | Each   | Ppd.   |
|--------------|--------|--------|
| 7¼-in. diam. | \$0 25 | \$0 40 |



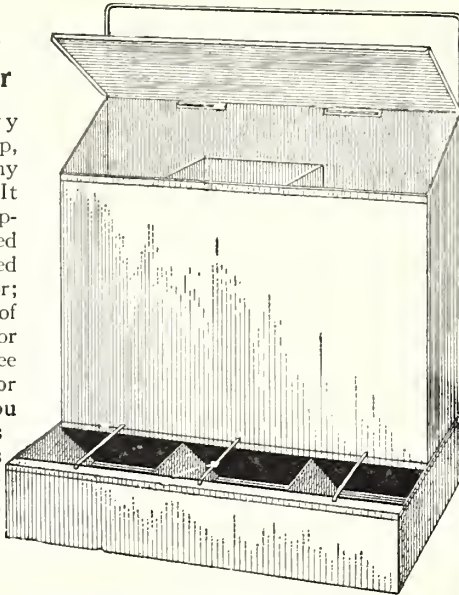
### Moe's Rabbit Feed Rack

For holding roots or hay, alfalfa, clover, etc. It prevents scattering hay and wasting. The round trough at the bottom catches the small tender leaves. Feed saved soon pays for the Rack.

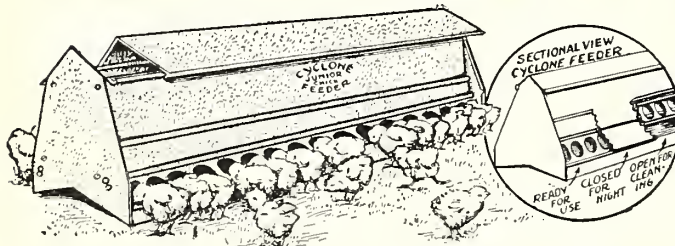
Price 75 cts.; postpaid 90 cts.

### The 1—2—3 Poultry Feeder

Used for dry mash, beef scrap, grit, shells, or any kind of dry feed. It is made with a separator. When used for one kind of feed take out separator; for two kinds of feed, put separator in one end; for three kinds put separator in center, when you have three feeders in one. The fowls cannot waste the feed. Price \$1.35, postpaid \$1.55.



### Cyclone Junior Chick Feeder

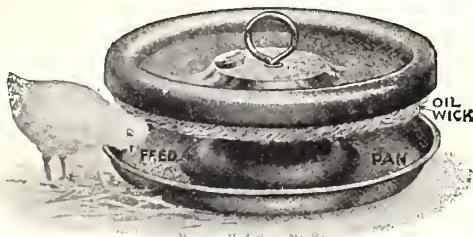


An ideal Feeder for the young growing chicks. It is made of galvanized iron, with sliding top, making it easy to fill. You will appreciate the new features in the Cyclone Junior.

The grates are hinged to the ends of the Feeder and swing back against the hopper, making it convenient for cleaning the feeding-troughs. This is one of the new features you will appreciate when cleaning the Feeder. Has a capacity of three-fourths bushel, thus making it a great time and labor saver when chicks are raised in large numbers. It is provided with a hinged cover for over grate holes and may be closed at night. This new feature will save a great amount of feed, which is otherwise wasted by rats. No. 130. \$2.70; postpaid \$2.95.

### Automatic Chick-Greaser

EVERY CHICK ITS OWN DOCTOR

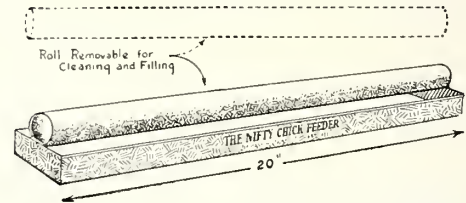


It is the large lice which collect on the heads of young chickens which cause them to droop and die. Formerly, the only way to get rid of these lice was to catch each chick and rub grease on its head, but this slow and tedious process is not necessary since the invention of the Automatic Chick-Greaser.

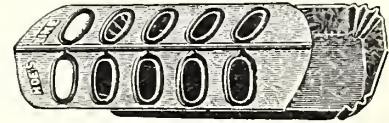
The wick around the upper part of the Greaser is saturated with oil (a mixture of two-thirds lard and one-third kerosene or black oil) and every chick which eats out of the pan will get its head thoroughly greased in a very few minutes.

\$1.25 each, postpaid \$1.40

### The "Nifty" Chick Feeder



A practical, handy and inexpensive feeder for chicks. Easy to clean and refill. Chicks cannot roost on it. 25 cts. each, postpaid 30 cts.; doz. \$2.70, postpaid \$2.90.



### Moe's Eclipse Feeding Troughs

A new popular-priced Feeding-Trough, made of galvanized iron and intended for chicks and growing stock. The pan and top are both stamped in one piece, no seams, rivets or solder used. Sliding top makes them easy to fill and keep clean. Made in two sizes.

#### PRICES

|                             | Each   | Postpaid | Doz.   | Postpaid |
|-----------------------------|--------|----------|--------|----------|
| No. 27. 10 inches long..... | \$0 20 | \$0 30   | \$2 15 | \$2 35   |
| No. 28. 20 inches long..... | 30     | 40       | 3 25   | 3 50     |

### Eclipse Aluminum Feeding Troughs

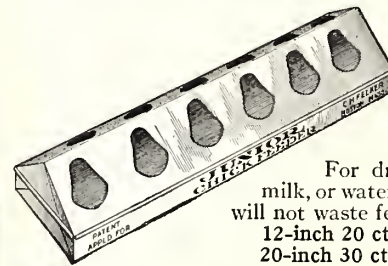
Same design as the Eclipse above

Buttermilk Feeding Troughs, made of pure aluminum, which is not affected by the acids of milk and similar feeds.

The Trough and top are each stamped in one piece, no seams, rivets or solder used. Sliding Top makes it easy to clean and fill. Made in two sizes.

#### PRICES

|                             | Each   | Postpaid | Doz.   | Postpaid |
|-----------------------------|--------|----------|--------|----------|
| No. 69. 10 inches long..... | \$0 50 | \$0 60   | \$5 40 | \$5 60   |
| No. 70. 20 inches long..... | 90     | 1 05     | 9 75   | 10 00    |



### The Junior Chick-Feeder

One of our most popular Feeders

For dry mash, hard grain, sour milk, or water; is practical and sanitary; will not waste feed. Chicks cannot foul it.

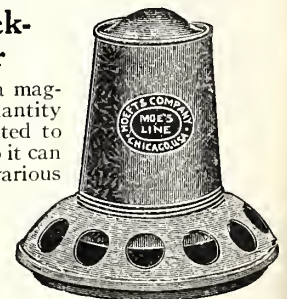
12-inch 20 cts.; postpaid 30 cts.  
20-inch 30 cts.; postpaid 40 cts.

### Moe's Magazine Chick-Feeder and Waterer

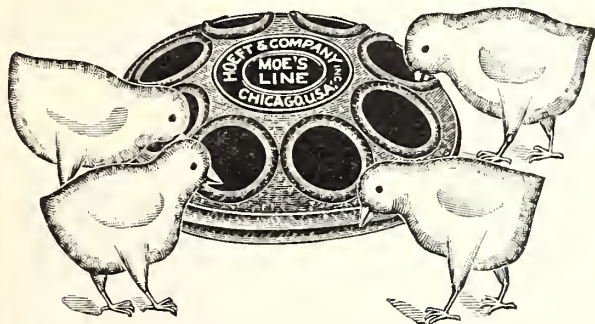
A new round Chick-Feeder with a magazine or container to hold a good quantity of feed. The upper magazine is fitted to the feeder top with a spiral thread so it can be adjusted up or down to feed the various kinds of grain. It can also be used as a drinking-fountain, as the magazine is water- and air-tight.

Diameter of feeder  $8\frac{1}{4}$  inches. Capacity 2 quarts. Height  $8\frac{1}{2}$  in.

No. 18. Moe's Chick-Feeder. Each 50 cts., postpaid 60 cts.



## Moe's Round Baby Chick-Feeder



A great feed-saver, as the little chicks cannot get into it and contaminate the feed. Can also be used for water. This is not a novelty, but a practical, well-made, feeding device that will last for years.

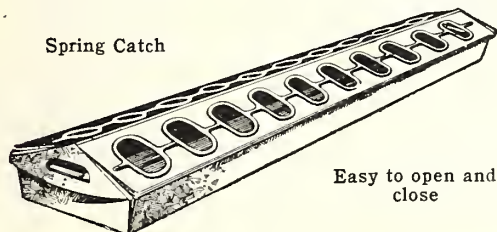
Made of the best grade of galvanized iron. Chicks cannot upset it.

|                               | Each   | Postpaid | Doz.   | Ppd.   |
|-------------------------------|--------|----------|--------|--------|
| No. 11. 8 feeder holes.....   | \$0 10 | \$0 20   | \$1 00 | \$1 20 |
| No. 12. 12 feeder holes.....  | 20     | 30       | 2 00   | 2 25   |
| No. 12. Porcelain Enameled... | 75     | 85       |        |        |

Stand 1 3/4 in. high, to raise feeder out of litter, 5 cts. extra.

## Spring-Catch-Cover Chick Troughs

Spring Catch



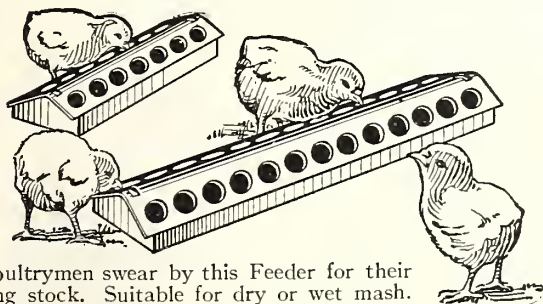
Easy to open and close

This new spring-catch flat bottom Trough is stamped into shape with dies, as shown in cut, thus making it strong and substantial as it has no soldered seams. The cover is fastened to the Trough by means of a spring catch, which makes the Trough as easy to open and close as a watch-case.

These Troughs are made in two lengths. The No. 11 has ten holes and the No. 21 has twenty holes.

|                             | Each   | Postpaid | Doz.   | Ppd.   |
|-----------------------------|--------|----------|--------|--------|
| No. 11. 10 inches long..... | \$0 20 | \$0 30   | \$2 15 | \$2 35 |
| No. 21. 20 inches long..... | 30     | 40       | 3 25   | 3 50   |

## The Keystone Chick-Feeder



Poultrymen swear by this Feeder for their young stock. Suitable for dry or wet mash. Made of heavy galvanized iron. Over the trough is a specially constructed gable-shaped grate, which prevents chicks wasting the contents or climbing into their feed. Special construction of fitting top prevents sticking. Can be easily removed and put on. Made in two sizes.

|                               | Each   | Postpaid | Doz.   | Ppd.   |
|-------------------------------|--------|----------|--------|--------|
| 10-inch Trough; 14 holes..... | \$0 20 | \$0 30   | \$2 15 | \$2 35 |
| 20-inch Trough; 26 holes..... | 30     | 40       | 3 25   | 3 50   |

## Moe's Single Feeding-Troughs

For Chicks and Growing Stock

Sliding Top



Easily Cleaned

Made of best quality galvanized iron, accurately stamped with dies. No sharp or rough edges to injure the chicks. Made in three sizes. Can be hung on the wall.

|                             | Each   | Postpaid | Doz.   | Postpaid |
|-----------------------------|--------|----------|--------|----------|
| No. 55. 12 inches long..... | \$0 25 | \$0 35   | \$2 75 | \$3 00   |
| No. 56. 18 inches long..... | 35     | 45       | 3 75   | 4 00     |
| No. 57. 24 inches long..... | 45     | 60       | 4 85   | 5 15     |

## Moe's Double Feeding-Troughs



|                             | Each   | Postpaid | Doz.   | Postpaid |
|-----------------------------|--------|----------|--------|----------|
| No. 58. 12 inches long..... | \$0 30 | \$0 40   | \$3 25 | \$3 50   |
| No. 59. 18 inches long..... | 45     | 55       | 4 85   | 5 15     |
| No. 60. 24 inches long..... | 60     | 75       | 6 50   | 6 85     |

## Moe's Dixie Feeding-Troughs



Made of best quality galvanized steel. The round Troughs are easily filled and cleaned, and have a turned-in flange to prevent waste of feed. Fitted with a heavy wire top guard to keep the chicks out of the feeder, and this guard is adjustable so it can be raised as the chicks grow.

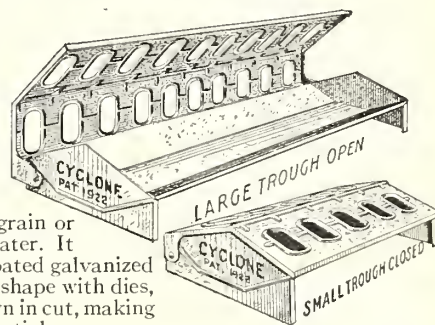
|                              | Each   | Postpaid | Doz.   | Postpaid |
|------------------------------|--------|----------|--------|----------|
| No. 460. 18 inches long..... | \$0 25 | \$0 35   | \$2 70 | \$2 90   |
| No. 462. 30 inches long..... | 35     | 45       | 3 75   | 4 00     |

## Hinged-Cover Chick-Troughs

Pat. Dec. 5, 1922

This cut shows No. 20 Hinged-Cover Chick-Trough open for filling and cleaning. It closes like No. 10.

EASY { TO OPEN  
TO CLOSE  
TO CLEAN  
TO FILL



A practical device for dry mash, hard grain or grit, sour milk, or water. It is made from tight coated galvanized metal, stamped into shape with dies, and is ribbed as shown in cut, making it strong and substantial.

### HINGED COVER

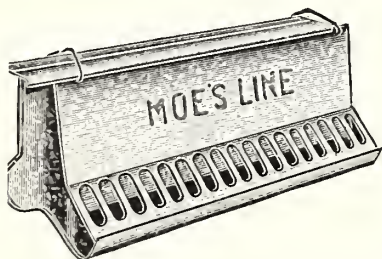
The cover, which has openings through which the chicks feed, is hinged to the trough, making filling and cleaning easy, also prevents spilling the feed and losing the top.

### TWO SIZES—LARGE CAPACITY

The peculiar construction adds to the capacity of the Troughs, which are made in two lengths only, 10 and 20 inches. Both lengths 3 inches high and 5 inches wide.

|                             | Each   | Postpaid | Doz.   | Ppd.   |
|-----------------------------|--------|----------|--------|--------|
| No. 10. 10 inches long..... | \$0 25 | \$0 35   | \$2 70 | \$2 95 |
| No. 20. 20 inches long..... | 40     | 50       | 4 25   | 4 60   |

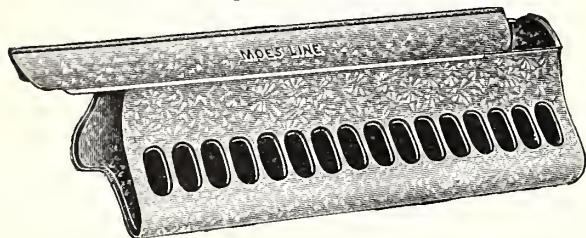
## Moe's Big Boy Feeder



Especially designed for growing stock—three- to four-week-old chicks—and up to full-grown, mature fowls. Has a large capacity, with wide, good sized feeder openings, the edges of which are rounded over perfectly smooth, so that large head birds cannot injure their combs. Makes an excellent feeder for turkeys. The Feeder-holes are exactly the right shape and size to prevent waste, and yet give easy access to a generous supply at all times. Has a capacity of about 75 pounds or 65 quarts of dry mash, with 17 openings on each side or a total of 34 openings. Can be placed on the ground or on a low stand or suspended by the two wire handles.

No. 160. Length 33 in., width 16½ in., height 14 in. ....\$3 75

## Moe's Large Capacity Feeder

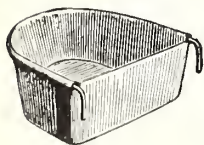


A wonderful Feeder for young growing stock. The birds cannot roost on the cover or sides. Made of heavy galvanized iron. Has a sliding top cover, easy to fill and clean.

|   |        |                 |
|---|--------|-----------------|
| No. 140. 21 in. long; 8½ in. wide; 7 in. high. Capacity 10 qts. 16 openings on each side. ....                                  | \$1 10 | Postpaid \$1 25 |
| No. 141. 35 in. long; 8½ in. wide; 7 in. high. Capacity 17 qts. 27 openings on each side. ....                                  | 1 75   | 1 95            |
| No. 146. Extra Hopper to fit on top of No. 140 Feeder. 21 in. long; 4 in. wide; 4 in. high. Capacity of Hopper, 5 quarts. ....  | 30     | 40              |
| No. 148. Extra Hopper to fit on top of No. 141 Feeder. 34½ in. long; 4 in. wide; 4 in. high. Capacity of hopper, 9 quarts. .... | 75     | 85              |

Extra Hoppers are not illustrated.

## Acme Feed or Water Cups



Made of galvanized iron. They are made to hang inside of exhibition coops or cages, and can be used for birds or small pet animals.

|                              |        |          |
|------------------------------|--------|----------|
|                              | Each   | Postpaid |
| No. 0. 4¼ x 3½ x 2¼ in. .... | \$0 15 | \$0 20   |
| No. 1. 5½ x 3½ x 2½ in. .... | 20     | 25       |
| No. 2. 7¼ x 3½ x 2½ in. .... | 30     | 35       |

## Moe's Feed and Water Cups

A practical and convenient Cup made to hang on the side of exhibition coops. Capacity about 1 pint.

Hangs straight on the side of the coop.

No. 61. 12 cts. each, postpaid 20 cts.; doz. \$1.30, postpaid \$1.45.



## Economy Chick Fount METALLIC RUST-PROOF



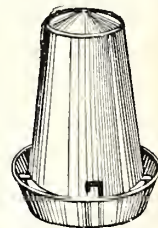
Diameter of pan, 5 inches. Height, 4 inches. Holds one pint. An excellent Fountain for the little chicks. Enough clean water all the time, but chicks cannot get into the pan.

|           |        |          |
|-----------|--------|----------|
|           | PRICES | Postpaid |
| Each..... | \$0 15 | \$0 20   |

## Felker's Cone Fountain

For chickens and pigeons. A new and practical two-part attachable Drinking-Fountain. It being attachable makes it easy to move from place to place and it is not easy to tip over.

|              |        |          |
|--------------|--------|----------|
|              | Each   | Postpaid |
| 1-quart..... | \$0 20 | \$0 25   |
| 2-quart..... | 30     | 40       |



Pat. applied for

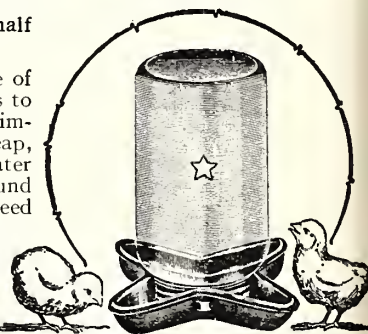
## The Star Jar Fountain and Feeder

Will fit pint, quart or one-half gallon Mason jar

Manufactured of one piece of non-rusting metal. No parts to come unsoldered. Leaking impossible. Convenient, cheap, and sanitary. Provides greater drinking surface than the round fountain. Can be used for feed as well as water.

Price, without Jars, 10 cts. each, postpaid 15 cts.; doz. \$1.10, postpaid \$1.30.

Stand 1¾ in. high, to raise fountain out of litter, 5 cts. extra.



## Moe's Mason Jar Fountain

Made of heavy terne plate, a rust-resisting metal, and the finest Fountain of its kind on the market. No solder used in its construction. Can be used for feed as well as water. Little chicks cannot drown. Will fit pint, quart, or 2-quart Mason jar. (Glass jars not furnished.) Diameter 6 in.

No. 142. 10 cts. each, postpaid 15 cts.; doz. \$1.10, postpaid \$1.20. Stand 1¾ in. high, to raise fountain out of litter, 5 cts. extra



## Felker's Handy Attachment

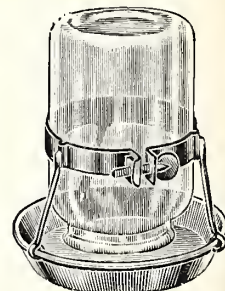
To be used with any make of Fruit Jar

### A PERFECT FEEDER

For sour milk, water, hard grain or grit

The container is made of aluminum, the only metal in which sour milk can be fed with safety. It is rust-proof and non-corroding. The Handy is adjustable, simple to operate and durable. Every one has some kind of a quart fruit jar—the Handy fits them all.

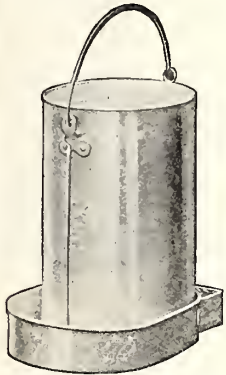
|                 |        |          |
|-----------------|--------|----------|
|                 | Each   | Postpaid |
| .....           | \$0 25 | \$0 30   |
| Half dozen..... | 1 40   | 1 55     |
| Dozen.....      | 2 75   | 3 00     |



Pat. applied for

## Keystone Drinking Fountains

Will sit alone while being filled, and can be filled from bucket or faucet. Bail handle makes it convenient to carry



Method of filling

These Fountains are made of black sheets and galvanized afterwards. No solder is used in making them.

The construction of this Fountain has made it the favorite and it is now considered the most practical, convenient, and one of the best on the market.

Hangs above floor or ground so that water is always clean.

Easy to Fill—Easy to Clean. Made in Three Sizes

|               | Each   | Postpaid |
|---------------|--------|----------|
| 2-quart.....  | \$0 65 | \$0 75   |
| 1-gallon..... | 90     | 1 10     |
| 2-gallon..... | 1 40   | 1 60     |

## The Peerless Sanitary Drinking Fountain

The water is always pure, as it is protected from dirt and filth. The fowls cannot injure their combs when drinking; easy to clean and fill; simple in construction; durable and practical. It is adjustable; the top and bottom can always be made to fit. Should it work too loose, take the Fountain apart and pull sides out; if too tight, press sides in.

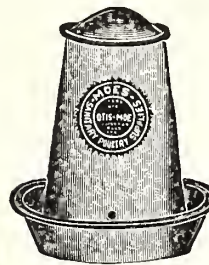
|               | Each   | Postpaid |
|---------------|--------|----------|
| 5-quart.....  | \$0 90 | \$1 05   |
| 10-quart..... | 1 25   | 1 50     |



## Lectro-Warm Electric Fountain Heater

Keeps drinking-water from freezing, even in zero weather. Safe and easy to use. No danger of fire or explosion. Cost averages about a cent a day. Used with any type fountain, pan, crock, or bucket. Set water vessel on Heater and turn on current. That's all there is to it! No adjusting! No regulating! No watching! Pays for itself in winter eggs. Heater is 8 inches in diameter, 1½ inches high, and made of heavy galvanized metal. Built for service. Can be used satisfactorily for a heater in a small home-made brooder, also oats sprouter. Money promptly refunded if unsatisfactory after 10 days' trial. When ordering, state voltage of your electric current. \$2.50 each; postpaid \$2.60.

Patented January 18, 1910



## Moe's Bottom-Fill Fountain

The chicks cannot get into the basin to foul the water nor to drown, and will not roost on the top. They are easily cleaned, light and durable. The round taper shape prevents bursting from freezing.

|                       | Each   | Postpaid |
|-----------------------|--------|----------|
| No. 19. 1-quart.....  | \$0 25 | \$0 35   |
| No. 20. 2-quart.....  | 35     | 45       |
| No. 24. 1-gallon..... | 50     | 65       |

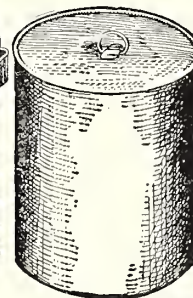
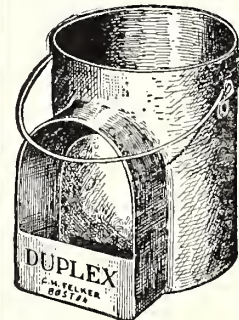
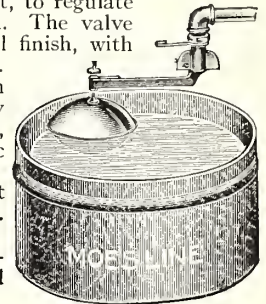
## Moe's Automatic Poultry Fountain

A perfect automatic valve and float, to regulate the flow of water to a drinking-dish. The valve mechanism is entirely of brass, nickel finish, with nothing about it to rust or clog up.

The valve is threaded for ¼-inch iron pipe and can be attached to any iron water pipe, or to a barrel or tank, and insures a continuous, automatic supply of water, without waste.

No. 30. Automatic Valve and Float only. \$1, postpaid \$1.10; doz. \$10.75, postpaid \$10.95.

No. 31A. Automatic Valve and Pan complete, as illustrated, \$1.50, postpaid \$1.65. Doz. \$16, postpaid \$16.40.



## Duplex Fountain

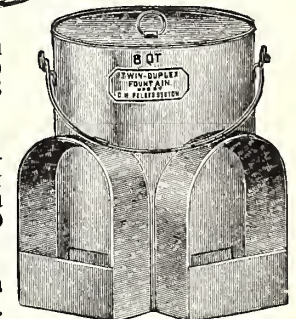
The latest and most practical sanitary Fountain on the market. This is a double fount, keeping the water clean and pure. Easy to fill. Easy to care for. Made in two sizes.

|            | Each   | Postpaid |
|------------|--------|----------|
| 1-gal..... | \$1 15 | \$1 30   |
| 2-gal..... | 1 40   | 1 65     |

## Twin Duplex Fountain

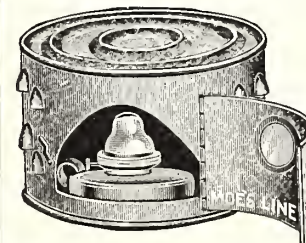
Constructed with two water-fronts which doubles the drinking capacity.

|            | Each   | Postpaid |
|------------|--------|----------|
| 2-gal..... | \$1 65 | \$1 90   |
| 5-gal..... | 3 00   |          |



## Two-Pen Duplex Fountain

Made with two water-fronts. Similar to Twin Duplex Fountain except water-fronts are opposite each other. (Not illustrated.) Same price as Twin Duplex Fountain.



## Moe's Fountain Heater

Can be used with all styles of fountains, and effectively prevents water from freezing.

Effectively solves the problem of a uniform supply of fresh, clear water at all times, no matter how cold the weather.

It is also an excellent heater for small brooder.

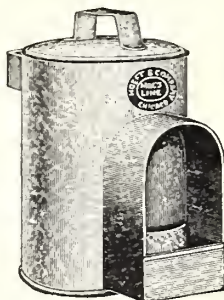
The lamp fount or bowl holds sufficient kerosene to burn continuously for seven days. Height, 7 in.; diam., 11 in.

No. 10. Each \$1.90; postpaid \$2

## Moe's Improved Wall Fountains

Made of heavy galvanized iron, in two sizes. The covered outlet keeps out dust and dirt, and the outlet is further protected by a removable plate which prevents any floating rubbish from being drawn into the reservoir.

|                        | Each   | Postpaid |
|------------------------|--------|----------|
| No. 98. 1-gallon ..... | \$1 00 | \$1 15   |
| No. 99. 2-gallon ..... | 1 40   | 1 60     |



## Moe's Top-Fill Fountain with Square Pans

Fills from the top. Dead air-space between cover and reservoir keeps water cool in the summer, and retards freezing in winter. There are no valves to get out of order. It is thoroughly sanitary and as easily cleaned as an ordinary pail. It protects the fowls from their own contamination. It does away with slopping over when being filled. It supplies just enough pure water and no more. Manufactured of heavy gal-

vanized iron in three sizes. Can be used for two pens at the same time.

|                       | Each   | Postpaid |
|-----------------------|--------|----------|
| No. 1. 1-gallon ..... | \$1 45 | \$1 60   |
| No. 2. 2-gallon ..... | 2 25   | 2 45     |
| No. 4. 4-gallon ..... | 2 65   | 2 85     |

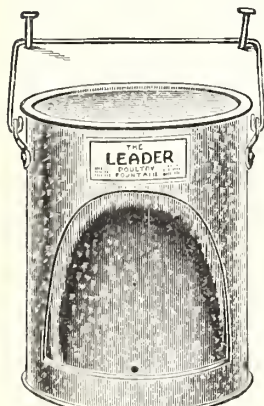


## Moe's Top-Fill Fountain with Round Pans

Made similar to the Top-Fill Fountain described above except it has round drinking-pans and the outside cover has a heavy wire handle, so it can be used to carry water when filling the inside tank. Made in two sizes.

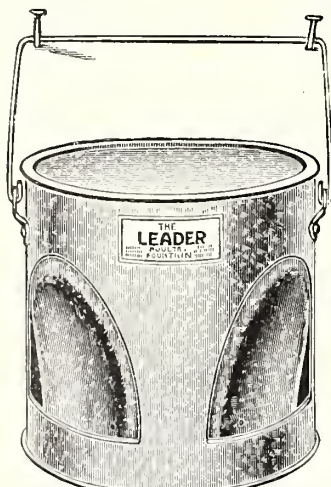
|                        | Each   | Postpaid |
|------------------------|--------|----------|
| No. 33. 2-gallon ..... | \$2 25 | \$2 45   |
| No. 34. 4-gallon ..... | 2 65   | 2 85     |

## Leader Fountains



Pat. applied for

1½-gal. size, 85 cts. each; postpaid \$1



Pat. applied for

3-gal. size, \$1.50 each; postpaid \$1.70

A new sanitary fountain, practical to use, easy to keep clean. A saving of from 30 to 40 per cent over any fountain of its size.

The 3-gallon size has two drinking-spaces, making it very convenient for a large pen of fowls. These founts hang on the wall with two nails, one at each angle of the bail.

## The MaKomb Top-Fill Heated Fountain

Constructed of best heavy galvanized steel, all seams locked and carefully soldered, fully tested and guaranteed tight. The water-trough extends all around fount, giving ample drinking-space. An entirely sanitary, convenient Fountain in standard, time-tested design. Equipped with a Lamp Heater. Lamp bowl forms the bottom of the base and holds 4½ pints of oil, sufficient for 24 days. Base can be used under the Fountain the year round for grown fowls. Used without base or stand for chicks.

|                 | Each   | Postpaid |
|-----------------|--------|----------|
| 3-gallon .....  | \$3 50 | \$3 70   |
| 5-gallon .....  | 4 00   | 4 25     |
| 10-gallon ..... | 6 50   |          |



## Moe's 5-Gallon Wall Fountain

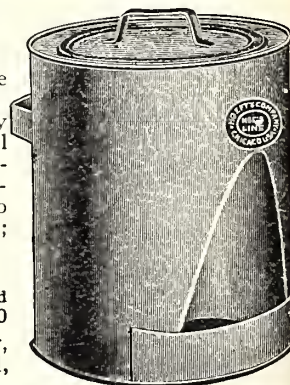
A large capacity Fountain, made of heavy galvanized iron.

This style appeals to many breeders, as it is a strong substantial Wall Fountain at a low price. Excellently adapted for watering pigeons. Easily filled and nothing to get out of order. Height 13 inches; diameter 11 inches.

### PRICE

|                     | Each   | Postpaid |
|---------------------|--------|----------|
| No. 74. 5-gallon .. | \$1 75 | \$2 00   |

With Moe's No. 10 Heater, shown on page 181, \$3.65; postpaid, \$3.90.



## Moe's Insulated Double Wall Fountains

Made of heavy galvanized steel with thick, double walls. The space between the outer and inner wall is packed with a highly efficient insulating material which keeps the water warm in winter and cool in summer. They feed the water automatically, and there are no valves, springs, or complicated parts. Easy to fill and fitted with strong top carrying handle.

In winter, fill at night with hot water, keep in basement or warm room, and in the morning the water will be of the right temperature for the poultry-house. The hot water thoroughly heats the insulated walls during the night, so freezing is retarded during the day.

In summer, fill with cool water, place in shady spot and the water will remain cool and fresh all day.

Poultry require more drinking-water than the average person realizes, and to keep the birds in prime condition and to maintain a good egg-yield they should always have easy access to an abundance of fresh water at the right temperature. Substantially made, carefully tested, and finished in a workmanlike manner throughout.

|                       | Each   | Postpaid |
|-----------------------|--------|----------|
| No. 5. 2-gallon ..... | \$2 90 | \$3 15   |
| No. 6. 3-gallon ..... | 3 50   | 3 80     |
| No. 7. 5-gallon ..... | 4 50   | 4 85     |



**BABY CHICKS.** Get our prices before placing your order. All leading breeds from high-bred stock. Beginning early in March will furnish chicks until the end of the season late in June.



## Ideal Sanitary Fountain

Keeps water cool in summer and warm in winter

The simplest, handiest, and most practical Fountain made. Keeps water the right temperature all the year. Has no lamps to trim, and valves to get out of order. Saves time, labor, and worry, and costs nothing to run.

The Fountain is made of galvanized iron, and is similar in construction to the fireless cooker, being packed with a non-conducting material to retain the temperature of the water. The drinking cup, which contains the only water exposed, forms a connection between the outer and inner can, and does not project beyond the outer can, there being no possible chance for droppings, the cause of much disease, to get into the water.

## Increases Winter Egg Production

An egg is 65 per cent water, therefore it is absolutely necessary to have pure, clean water of the right temperature before them constantly and by the use of the Ideal Fountain, water can be kept just right at all times.

### PRICES

|               | Each   | Postpaid |               | Each   |
|---------------|--------|----------|---------------|--------|
| 2-gallon..... | \$3 50 | \$3 75   | 5-gallon..... | \$5 00 |
| 3-gallon..... | 4 00   | 4 25     |               |        |

## Felker's Insulated Duplex Fountain

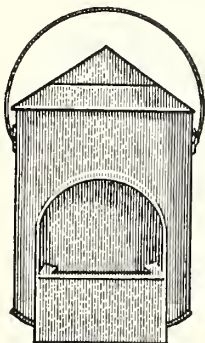
Top Section Slides into Bottom Section

Its construction makes it as handy to clean as a common pail. The top or inside container slides into the bottom section or base, and can be removed without inconvenience at a moment's notice. The water is kept pure and clear at all times.

The extra-large opening, or drinking-trough, makes this Fountain easy of access to a number of fowls at the same time.

An entirely new and improved method of insulation enables it to keep water at an even temperature the coldest day of winter and the hottest day of summer. It will not freeze.

|               | Each   | Postpaid |
|---------------|--------|----------|
| 3-gallon..... | \$4 50 | \$4 85   |
| 4-gallon..... | 5 00   | 5 40     |



## Stoneware Fountains and Feeders



Two-piece Fountain



Sanitary Milk Feeder

Be sure and specify which is wanted, Fountains or Feeders. By freight or express only.

Made of best grade stoneware, highly glazed inside and out. Sanitary and easy to keep clean.

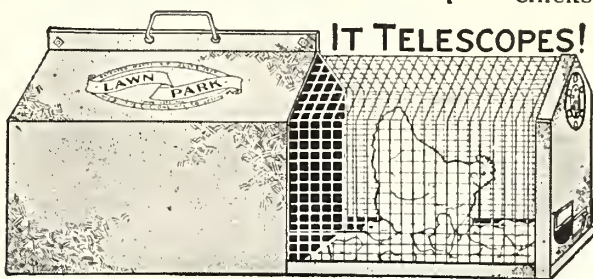
PRICES for Fountains or Feeders:

|                 | Each   | Doz.   |
|-----------------|--------|--------|
| 1/4-gallon..... | \$0 50 | \$5 50 |
| 1/2-gallon..... | 60     | 6 50   |
| 1-gallon.....   | 75     | 8 00   |
| 2-gallon.....   | 1 25   | 13 75  |

## The LAWN PARK Brood Coop

SAVES THE CHICKS

IT TELESCOPES!

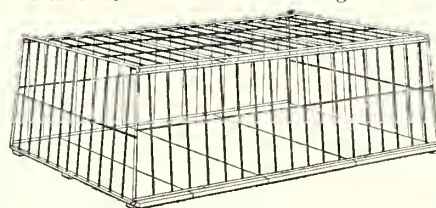


Patented May 13, 1919

It is made entirely of galvanized materials, will not rust, and absolutely protects chicks against rats, cats, dogs, hawks, vermin, cold, storms, and all other chick enemies. The main part of the Coop is made from heavy galvanized steel, while the Park is made from strong galvanized wire screen, which has the edges neatly bound and strongly reinforced with galvanized steel. The Lawn Park is large and roomy, being 18 inches wide, 19 1/2 inches high, and 48 inches long, with Park extended. The Coop and the Park are of equal length. The Park permits the chicks to have plenty of sunshine and fresh air, and also allows them to range on grass. Coop has removable bottom for quick and easy cleaning. Price \$3.75. each, 3 for \$9.75

## The Pittsburgh Shipping Coop

The most serviceable, sanitary, and durable Shipping Coop on the market. Made of the best galvanized steel bars and wire



electrically welded together and sufficiently stayed to make it rigid throughout. The bottom is made of the best seasoned wood and is assembled by the floor-boards being

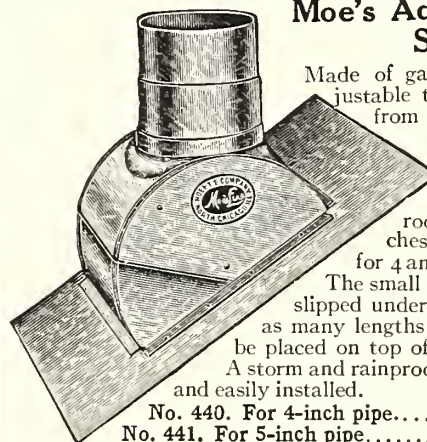
stapled to three cross sections and reinforced with cleats on top.

Standard Size. 27 x 41 x 14 inches high.....\$3 25

Turkey Size. 27 x 41 x 20 inches high.....4 25

ASK FOR PRICES ON OTHER SIZES AND LARGER QUANTITIES

## Moe's Adjustable Roof Saddle



Made of galvanized iron and adjustable to any required angle from an almost flat roof to one-half pitch. Quickly adjusted and locked rigidly in the desired position. Size of flat roof flange 14 by 18 inches and made in two sizes for 4 and 5-inch brooder pipe.

The small end of regular pipe is slipped underneath the Saddle, and as many lengths of pipe as desired can be placed on top of the saddle.

A storm and rainproof Roof Cap or Saddle, and easily installed.

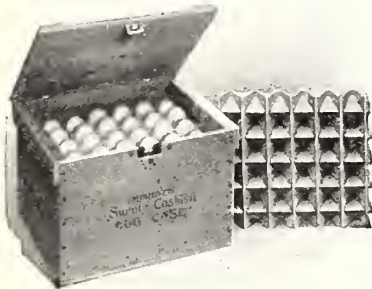
|                               | Each   | Postpaid |
|-------------------------------|--------|----------|
| No. 440. For 4-inch pipe..... | \$1 50 | \$1 65   |
| No. 441. For 5-inch pipe..... | 1 65   | 1 80     |

## Smoke-Pipe for Brooder Stoves

Blue Steel in 2-ft. lengths, 4-in. diam., 25 cts. per length; postpaid, 30 cts. 5-in. diam., 28 cts. per length; postpaid, 33 cts. Cast-Iron Dampers. For 4-in. pipe, 12 cts. each; for 5-in. pipe, 13 cts. each. Elbows, Crimped. 4-in. diam., 15 cts. each; postpaid 18 cts. each. 5-in. diam., 17 cts. each; postpaid, 20 cts. each.

## Improved "Surety Cushion" Wooden Egg-Cases

Nothing like them, nothing just as good for parcel post and express shipments. Made in all sizes to hold from two dozen to thirty dozen eggs.



Patented

Light, yet strong, they are sure to carry safely, regardless of the distance. Easier and quicker to pack than the ordinary returnable cases. Will stand up under the most severe tests and pay for themselves in two or three shipments by eliminating breakage. Many successful poultrymen throughout the country are using them.

### The Improved "Surety Cushion" Egg-Case is con-

structed of the best of planed lumber. The ends are reinforced with strips of wood fastened just above the grooved handles so as to prevent the sides from loosening. The double-jointed link hinges, riveted on the inside, allow the cover to turn back without breaking off. It also has a snap catch lock and a small hole cut in the cover and side for sealing with a wire seal.

The Improved "Surety Cushion" Cases are no heavier or larger than the ordinary returnable cases. The cost of shipping is reduced considerably by the saving in weight and bulk occasioned by the use of our improved reversible pyramid pocket trays. These trays hold each egg in a double pyramid cushion pocket, which prevents the eggs from coming in contact with one another, and also from rattling about.

The cases are also ideal for storing eggs for hatching, as the eggs may be turned from day to day merely by the turn of the case. This may be done without fear of breakage, even when the cases are only partly filled.

Empty cases may be returned to the shipper for 15 cents apiece for any distance. Ask your local express office for further particulars.

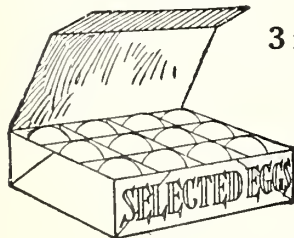
The "Surety" Trays may be used repeatedly and usually last as long as the cases, but if by chance they are broken, extra trays may be purchased separately.

Ready for immediate use when delivered.

### PRICES AND AVERAGE WEIGHT

|                   | Without Eggs | Each   | Postpaid |
|-------------------|--------------|--------|----------|
| 2-dozen size....  | 6 lbs.       | \$1 65 | \$1 80   |
| 4-dozen size....  | 7 3/4 lbs.   | 1 90   | 2 05     |
| 5-dozen size....  | 8 1/4 lbs.   | 2 00   | 2 15     |
| 6-dozen size....  | 9 lbs.       | 2 10   | 2 25     |
| 8-dozen size....  | 10 3/8 lbs.  | 2 35   | 2 55     |
| 10-dozen size.... | 10 3/4 lbs.  | 2 60   | 2 80     |
| 12-dozen size.... | 12 1/2 lbs.  | 2 85   | 3 05     |
| 15-dozen size.... | 14 lbs.      | 3 25   | 3 50     |
| 30-dozen size.... | 25 lbs.      | 4 75   |          |

Extra trays 24-25-egg size (for 2-, 4-, 6-, 8- and 12-dozen size cases), 12 cts. per tray; 30-egg size (for 5, 10, 15, and 30-dozen size cases), 14 cts. per tray.



## 3 x 4 Folding Egg Cartons

One-dozen size. No printing

This is the regulation Folding Egg Carton, used where eggs are delivered direct to customers. It is not a parcel post box. They are also used as fillers for The Successful Handy Egg Crate.

### PRICES

|                | Postpaid      |                 | Postpaid      |
|----------------|---------------|-----------------|---------------|
| 12 Boxes.....  | \$0 25 \$0 30 | 250 Boxes.....  | \$2 50 \$2 85 |
| 50 Boxes.....  | 70 80         | 500 Boxes.....  | 4 25 4 95     |
| 100 Boxes..... | 1 25 1 50     | 1000 Boxes..... | 7 50          |

## "Surety Cushion" Fibre Egg-Cases

Very Light, Yet Safe

NOTHING TO EQUAL IT FOR SMALL SHIPMENTS  
By Parcel Post and Express

Made of highly polished and durable black fibre and looks like an over-night case. It is attractive and yet inconspicuous in appearance. All parts are riveted and corners protected with metal.

Fitted with the same patented "Surety Cushion" reversible egg trays that, after years of severe tests, have stood up and carried safely where other egg containers have been found unsatisfactory.

Its extremely light weight and the strap handle makes it more convenient to carry when returning the case to the post office than any other egg-shipping container on the market.

The address card is enclosed in a patented celluloid covered address plate, and can only be removed or reversed from the inside. The celluloid covering also protects the address from being blurred by water. The case may be locked by fastening a small padlock, wire seal, or cord through the eyelets on both ends of the strap. As the strap is riveted to the case, the cover cannot be removed without actually breaking the strap or the seal.

As each egg is held in an individual pocket, any size case may be used for shipping a smaller quantity than its full capacity by leaving some of the pockets empty.

### PRICES AND WEIGHT

|                   | Without Eggs | Each   | Postpaid |
|-------------------|--------------|--------|----------|
| 2-dozen size..... | 3 1/2 lbs.   | \$1 75 | \$1 85   |
| 4-dozen size..... | 4 lbs.       | 2 00   | 2 15     |
| 6-dozen size..... | 4 3/4 lbs.   | 2 25   | 2 40     |

Extra trays same price as trays for "Surety Cushion" Wooden Egg-Cases.



Patented

## "HatchanEgg" Box

This box is so constructed with filler inserted, that it will resist crushing and blows received when in transit much better than a one-piece box or a box without a filler, such as the average box now on the market.

The Anderson "HatchanEgg" Box is designed particularly for transportation of valuable eggs for hatching. The maximum of safety is assured. "HatchanEgg" boxes are printed in two colors with forwarding and shipper's address lines.

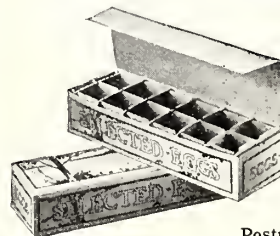
### PRICES

|                           | Each   | Postpaid | Doz.   | Postpaid |
|---------------------------|--------|----------|--------|----------|
| No. 3. Holds 15 Eggs..... | \$0 35 | \$0 40   | \$3 25 | \$3 60   |
| No. 4. Holds 30 Eggs..... | 45     | 50       | 4 50   | 4 90     |
| No. 5. Holds 50 Eggs..... | 60     | 65       | 6 00   | 6 50     |



Safe and Sure

## 2 x 6 Folding Egg Cartons

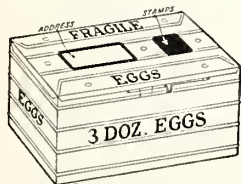


Market your eggs in this first-class Egg Carton. Holds one-dozen eggs and made with full-cushion filler, giving full protection to the eggs and long front flap, which gives a rigid top to the box. Can be used with the Successful Handy Egg Crate, Humpty Dumpty Crate, or 30-dozen regulation egg-case. Not suitable for Parcel Post use.

|                  | Postpaid      |                  | Postpaid      |
|------------------|---------------|------------------|---------------|
| 12 Cartons.....  | \$0 35 \$0 45 | 250 Cartons...   | \$4 00 \$4 50 |
| 50 Cartons.....  | 1 10 1 25     | 500 Cartons...   | 7 50 8 50     |
| 100 Cartons..... | 2 00 2 30     | 1,000 Cartons... | 13 50         |

## The Original Aluminized Metal Egg-Crates

This is the New Model with the metal edged filler and it is a wonder. Solves every problem of shipping eggs and butter and other soft products by mail. Built for continued use; practically indestructible; lasts for years. No wrapping is required. A permanent lock pin attached to the crate holds the lid rigidly closed.

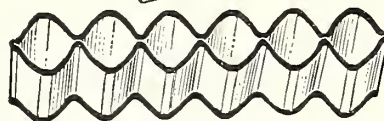
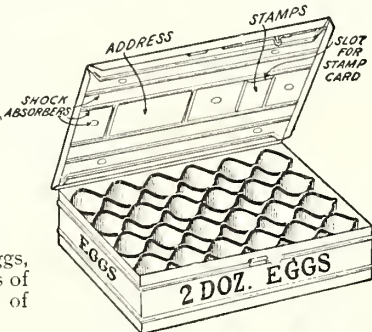


### Reversible Address Cards

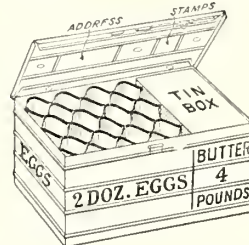
Reversible address cards are placed over eggs, address visible through opening in lid. Names of shipper and receiver are placed on each side of this card.

### Metal Edge Filler

This is a wonder—so strongly made that it will not require replacements. Every user praises the New Model, with the Metal Edge Filler. Nothing better can be made to stand the jar and shocks in transit.



Metal Edge Filler



### Combination Crates

Any size Combination Crate desired can be supplied to carry eggs, with metal containers to hold butter, lard, sausage, honey, cut-up chicken, country sliced ham, etc. Any of these Combination Crates will be found surprisingly satisfactory. Butter, lard, and other soft products will not melt or run in warmest weather.

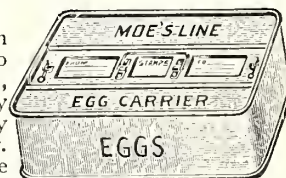
| EGGS ONLY                   | Each   | Postpaid | Weight empty |
|-----------------------------|--------|----------|--------------|
| 1-doz. size, all eggs.....  | \$1 00 | \$1 08   | 2 lbs.       |
| 2-doz. size, all eggs.....  | 1 50   | 1 59     | 4 lbs.       |
| 3-doz. size, all eggs.....  | 1 75   | 1 85     | 4 lbs.       |
| 4-doz. size, all eggs.....  | 2 00   | 2 11     | 5 lbs.       |
| 6-doz. size, all eggs.....  | 2 50   | 2 62     | 6 lbs.       |
| 9-doz. size, all eggs.....  | 3 25   | 3 39     | 8 lbs.       |
| 12-doz. size, all eggs..... | 4 00   | 4 16     | 10 lbs.      |

| EGGS AND BUTTER               | Each | Postpaid | Weight empty |
|-------------------------------|------|----------|--------------|
| No. 1. 2 lbs. and 1 doz. eggs | 1 50 | 1 59     | 3 lbs.       |
| No. 2. 4 lbs. and 2 doz. eggs | 2 00 | 2 10     | 4 lbs.       |
| No. 3. 4 lbs. and 3 doz. eggs | 2 25 | 2 36     | 5 lbs.       |

| BUTTER ONLY                     | Each   | Postpaid | Weight empty |
|---------------------------------|--------|----------|--------------|
| No. 4. 6 lbs. (3 2-lb. cont.)   | \$2 25 | \$2 34   |              |
| No. 5. 12 lbs. (3 4-lb. cont.)  | 2 50   | 2 60     |              |
| No. 6. 16 lbs. (2 8-lb. cont.)  | 2 50   | 2 60     |              |
| No. 7. 24 lbs. (2 12-lb. cont.) | 3 50   | 3 62     |              |

### Moe's Metal Egg-Carriers

Made of smooth, galvanized, sheet steel, with rounded corners, and properly constructed to absorb and resist shocks from all sides. A light, strong, and durable egg-box designed principally for safe parcel post shipments. Fitted with heavy cardboard fillers, securely protecting each egg. Reversible address cards are held firmly in the cover, for going and return address, and space for stamps. The fasteners may be sealed if desired with soft wire.



|                                | Each   | Postpaid |
|--------------------------------|--------|----------|
| No. 245. 2-dozen-egg size..... | \$1 50 | \$1 59   |
| No. 246. 4-dozen-egg size..... | 2 00   | 2 11     |
| No. 247. 6-dozen-egg size..... | 2 50   | 2 62     |

### Successful Handy Egg-Crate "JUST LIKE A SUIT-CASE"

Made of galvanized iron, except the cover—will last a lifetime. Light in weight; size, 17 inches long, 8 inches wide and 13 inches deep. Holds 15 dozen eggs; has adjustable top that fits into crate any depth desired. This feature is very desirable because you can pack 1 dozen eggs as well as 15 dozen, and prevent them from rolling around and breaking—adjustable top holds them in place no matter whether the crate is one-fourth, one-half or entirely full.

The regulation Folding Egg-Cartons shown on page 184 are used as fillers for this Crate.

Crate Complete, with Fillers, \$2.25; postpaid \$2.50

### Humpty Dumpty Egg-Carrier

THE BEST, CHEAPEST AND MOST CONVENIENT EGG-CARRIER IN EXISTENCE

Equipped with Safety Cushion Flats which practically eliminate breakage. No tool needed to set up these strong and durable carriers—no bothersome work in packing, and can be used over and over again.

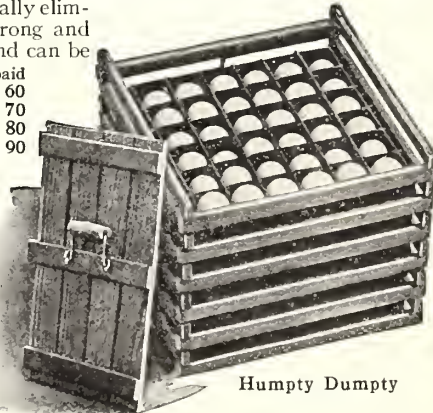
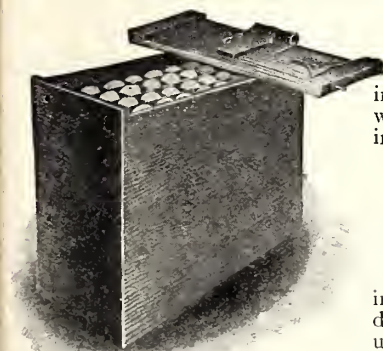
|   | Each   | Postpaid |
|---|--------|----------|
| 3-dozen size, complete with fillers.....  | \$0 50 | \$0 60   |
| 6-dozen size, complete with fillers.....  | 60     | 70       |
| 12-dozen size, complete with fillers..... | 65     | 80       |
| 15-dozen size, complete with fillers..... | 75     | 90       |

Extra Fillers, 5 cts. each, 50 cts. per doz.; postpaid 55 cts. Case containing 120 three-dozen size fillers and 144 flats, \$4.

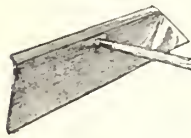
### Master Breeders' Chick Box

A safe and convenient carrier for shipping baby chicks either by express or parcel post. Made according to Association standards and are full 5½ inches in depth. Covers are neatly printed in two colors.

|                                  | Each   | Ppd.   | Doz.   | Ppd.   |
|----------------------------------|--------|--------|--------|--------|
| 25-Chick size. 11 x 9 x 5½ in.   | \$0 20 | \$0 30 | \$1 50 | \$1 75 |
| 50-Chick size. 18 x 11 x 5½ in.  | 25     | 35     | 1 75   | 2 05   |
| 100-Chick size. 22 x 18 x 5½ in. | 30     | 40     | 2 60   |        |



Humpty Dumpty

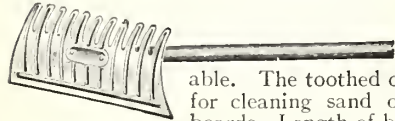


### Mehler Handy Scraper

For cleaning poultry-houses and dropping-boards; gets the corners. Time is money; be progressive; save by using Mehler

Scraper. Does the work better in one-third the time, and soon pays for itself. Scrapes on the push or pull. 13 inches wide, 4 inches high. Price \$1.25.; postpaid, \$1.50.

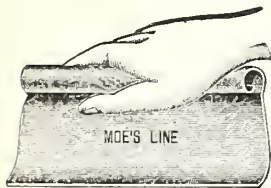
### Moe's Handled Scraper



Made of hard, stiff steel. Light in weight, yet strong and durable.

The toothed or rake edge is excellent for cleaning sand or sifted ashes on drop boards. Length of blade 9½ inches; width 4 inches; with 30-inch hardwood handle securely riveted to the blade. No. 51. Handled Scraper, 45 cts. each; postpaid, 55 cts.

### Moe's Scraper and Cleaner



Made of one piece of galvanized iron. No wood handle to get loose and come off. Just the thing to get in the corners when cleaning. 10 inches long. Price 20 cts.; postpaid, 25 cts.

### The Lyon Roost Insulator



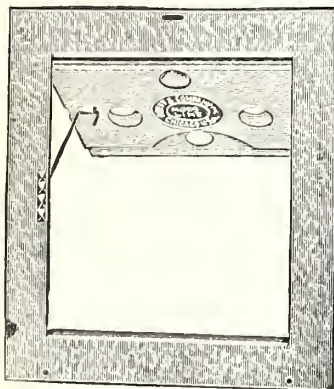
Its application is best explained as follows: An upright support, perhaps 1½ or 2 inches square and of any desirable height, is used for each end of roosts. Holes are bored in at the top of these supports large enough to allow the Insulator to fit tight and deep enough to allow bottom of Insulator bell to rest on square top of upright.

The roost-pole is then bored to fit tight on top of Insulator and deep enough to allow it to rest on the small shoulder provided for that purpose.

The bell-shaped cup is then kept partially filled with kerosene oil which either traps and destroys the vermin or turns them back in their travels up the supports towards the roost.

|                |        |                 |
|----------------|--------|-----------------|
| One Pair.....  | \$0 25 | Postpaid \$0 35 |
| Six Pairs..... | 1 25   | 1 45            |

### Moe's Trap Nest Front



Open

An inexpensive and useful device which meets a popular demand.

Made of best quality galvanized iron, simple in operation, with no small loose parts to get out of order.

Can be easily fitted to any orange or ordinary wood-box or coop and gives the breeder the opportunity to use a size nest best adaptable to his birds, with a uniform automatic trap feature suitable for any breed of fowl.

Effectively traps the hen, yet allows ample ventilation.

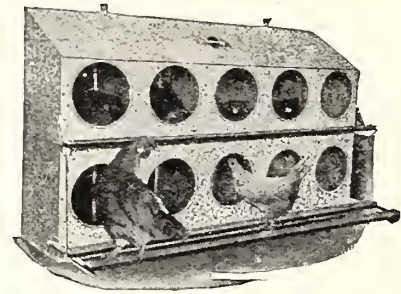
Door is hinged, making it easy to remove the hen or

clean the nest. 11 in. wide by 12 in. high. Size of opening 8 in. by 9 in.

No. 63. 50 cts. each, postpaid 60 cts.; \$5.50 per doz., postpaid \$5.75.

### Jamesway All-Metal Nests

Lice- and Mite-Proof



Put Jamesway All-Metal Nests in your poultry-house and watch your hens side-step the old mite-infested wood boxes. The hard, smooth, sanitary, galvanized surface of Jamesway Metal Nests offers no place for parasites to hide and thrive. Jamesway All-Metal Nests are clean, sanitary, lice- and mite-proof, and easily cleaned. Simply swing them forward and upward. The back of the nest is open. Straw and shavings fall out, and the nest is cleaned. Swinging the perches up against the face of the nest prevents hens from roosting in the nest or on the perches. Raising the bottom perch automatically raises the upper one, an exclusive Jamesway feature.

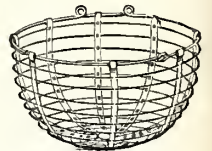
|            |   |        |
|------------|---|--------|
| No. 823-B. | 3-Nest Unit (1 tier, 3 ft. long).....   | \$5 00 |
| No. 626-D. | 6-Nest Unit (2 tiers, 3 ft. long).....  | 8 25   |
| No. 630-D. | 10-Nest Unit (2 tiers, 5 ft. long)..... | 11 50  |
| No. 635-A. | 15-Nest Unit (3 tiers, 5 ft. long)..... | 16 00  |
| No. 831-A. | Trap Attachment, extra, each .....      | 40     |

### Hens' Wire Nests

Made of coppered steel wire, with flat steel ribs, and heavy top wire, all copper finish.

Provides a clean, sanitary nest for the setting hen. Easily kept free from vermin.

Intended to fasten to wall with nails or screw-hooks. Can be readily changed and filled with fresh straw or hay.



|          |                      | Each   | Postpaid | Doz.   | Postpaid |
|----------|----------------------|--------|----------|--------|----------|
| No. 300. | 12 in. x 6½ in. .... | \$0 20 | \$0 30   | \$2 20 | \$2 40   |
| No. 301. | 14 in. x 7 in. ....  | 25     | 35       | 2 75   | 3 00     |

### Clay Pigeon Nests

Unglazed

9-in. diameter, 25 cts. each, doz. \$2.70. By express or freight.



### Moe's Pigeon Nests

Made of galvanized iron. Diameter 8 inches, with a small hole punched in center so it can be tacked to a board. Generally used in pairs.

Light in weight, yet substantial, and easily cleaned.

No. 107. Pigeon Nests, 15 cts. each, postpaid 20 cts.; \$1.60 per doz., postpaid \$1.75.



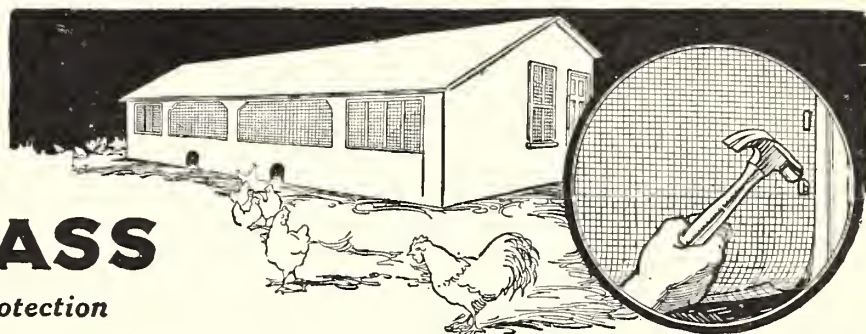
### Our Nursery Department

See pages 49 to 59

We furnish high-grade stock of *Roses, Climbing Vines, Hardy Perennials, Perennial Phlox, Peonies, and Shrubs*. All of our stock is No. 1 grade and will be delivered to our customers in the best possible condition.

FOR

Poultry-Houses Coldframes  
Hog-Houses Back Porches  
Dairy-Barns Garage Doors  
Storm-Doors Barns



# CEL-O-GLASS

*For Light, Health, and Protection*

CEL-O-GLASS is a light-weight material that admits light almost as freely as clear glass. It is hailproof, heatproof, coldproof and weather-proof.

It lets through the healthful ultra-violet rays of the sun which are so valuable in poultry-raising. Glass absorbs these rays and does not let them pass.

When used for poultry-house fronts and lights, laying-houses, colony houses, and brooders, CEL-O-GLASS makes chicks grow faster and eventually lay more eggs, and prevents leg weakness.

CEL-O-GLASS is used at the poultry farm of the United States Department of Agriculture, and at the Experiment Stations of Connecticut, New Jersey, Pennsylvania, Ohio, Georgia, Alabama, Iowa, Nebraska, Wisconsin, Washington, and others in the United States and Canada.

CEL-O-GLASS is easy to install; a hammer and staples are the only tools needed.

Write for Sample and Booklet

| In rolls 3 feet wide               | Postpaid        | Small quantities                   | Postpaid      |
|------------------------------------|-----------------|------------------------------------|---------------|
| 100-foot Roll, 300 square feet.... | \$48 00 \$48 50 | 10 lineal feet, 30 square feet.... | \$5 20 \$5 35 |
| 50-foot Roll, 150 square feet....  | 24 50 24 80     | 5 lineal feet, 15 square feet....  | 2 75 2 85     |
| 25-foot Roll, 75 square feet....   | 12 50 12 70     |                                    |               |

CEL-O-MEND. For repairing punctures in CEL-O-GLASS. ½pt. 45 cts., postpaid 55 cts.; pt. 75 cts., postpaid 85 cts.

# GLASS CLOTH

(PATENTED)

*Much Cheaper Than Glass*

Glass Cloth is a strong fabric treated by a patented process to make it transparent, weather-proof, and water-proof. It costs much less than glass and for many purposes is superior. Anyone can put it up. It admits abundant light which it diffuses and scatters to all parts of the enclosure.

Chicks thrive amazingly under Glass Cloth. They get the ultra-violet sun rays and grow faster and healthier, feathering out into plump frying size several weeks earlier than the average.

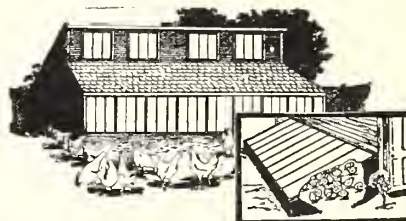
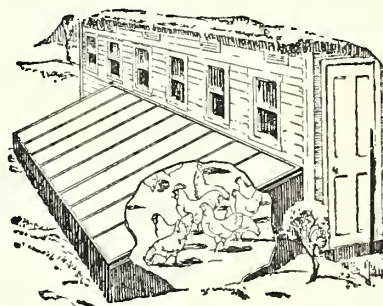
Glass Cloth readily transmits the life-giving vitalizing ultra-violet rays of the sun. (Glass stops them.) These are the health rays of sunlight and are absolutely needed by poultry in winter months. Glass Cloth sheds a warm, soft, even light full of violet rays to all parts of the enclosure.

A test with chicks at Iowa State College at Ames proved that Glass Cloth is essential not only to the health of baby chicks but to their very lives as well. Of the chicks raised under glass 25 per cent died. Of those raised under Glass Cloth not one died—in fact all came through in tiptop health.

The 75 per cent that were able to live under window glass gained only 180 per cent on their original weight, while those under Glass Cloth gained 250 per cent.

**Ideal for Hotbeds.** Light, strong and cheap. Glass Cloth is the ideal material for hotbeds and coldframes. Glass Cloth holds in the warmth and does not chill as quickly as window glass. Tender young plants need ultra-violet light, just as baby chicks do. Glass Cloth lets these rays through and as a result you do grow stronger, hardier plants that will not be half so likely to "burn up" in the sun when you set them out.

Glass Cloth tacked over your screens makes fine storm doors and windows. Admits abundant light. Brings winter comfort. Shuts out cold. Saves fuel and doctor bills. Ideal for enclosing porches and sleeping porches. Use it to repair broken windows in barn, chicken coop, or hog-house. Some tacks and a hammer are all you need.



IN ROLLS 36 INCHES WIDE

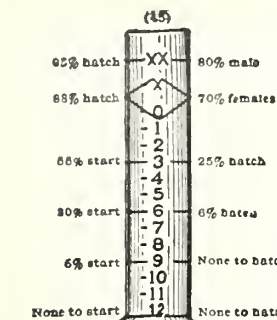
|                                     |         | Postpaid |
|-------------------------------------|---------|----------|
| 100-yard Roll, 900 square feet..... | \$32 00 | \$32 60  |
| 50-yard Roll, 450 square feet.....  | 16 50   | 16 85    |
| 15-yard Roll, 135 square feet.....  | 5 00    | 5 20     |
| 10-yard Roll, 90 square feet.....   | 3 50    | 3 65     |
| Less than 10 yards, per yard.....   | 40      | 40       |

BOOKLET AND SAMPLE ON REQUEST

## 1910—Breeder's Magic Egg-Tester—1929

The cut to the left shows the Tester minus the fine wire clamps which are attached to the bottom for holding the egg, and which, together with the Tester, are dropped in a pail of water. The water-line shows the exact grade. Eggs testing "o" or above are used for incubation. For example, eggs testing from "o" to "x" hatch to the extent of 88 per cent, and 70 per cent of the chicks will be females.

The Magic Egg-Tester has revealed the true cause of infertile eggs, and the subject is made clear and plain in a bulletin included with the Tester. The poultryman who is interested must look to our bulletins sent out with every Tester for further uses of the Magic Egg-Tester, as limited space will not permit discussing them herein. The various merits of this Tester have been told monthly in every prominent Poultry Journal in the United States and Canada continuously for the past ten years, and demonstrated hundreds of times in Poultry shows from Maine to California. Simple in construction—will last a life-time. The use of water is beneficial rather than harmful to the eggs. This Tester requires no skill or expense to operate—just a pair of hands and eyes. Will grade 400 per hour, and the greatest money-saver in the realm of poultry supplies. Fully guaranteed. \$2.50 each, postpaid.



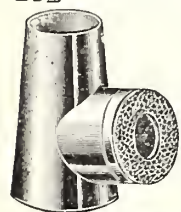
Magic Egg Tester

## Moe's Egg-Tester

Used with an ordinary lamp (No. 2 burner) in a dark room.

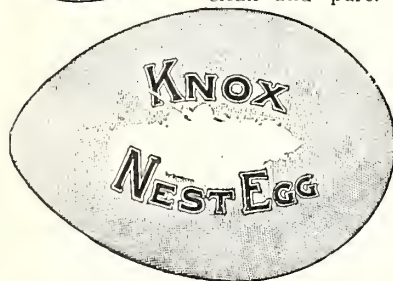
It will illuminate the interior of the egg, and show if the chick is alive, and also show the size of air-cell in the egg.

No. 48. Moe's Egg-Tester. 25 cts. each; postpaid 35 cts.



## Knox Nest-Egg

A naphthalene egg that will keep the nest clean and pure. They are also used as nest-eggs, but care should be taken not to let them come in contact with the eggs for any length of time, as the hen's eggs will become tainted. For this reason we recommend that they be put under the nesting material. Price, 7 cts. each; 4 for 25 cts. (postpaid 30 cts.); 65 cts. per doz. (postpaid 75 cts.).

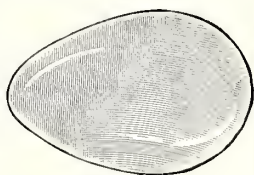


## Glass Nest-Egg

Natural in appearance and uniform in size. Will not easily break.

They induce the hen to lay where she should—in the nests provided for her.

Very popular, and the cleanest nest-egg used. Price, 3 for 10 cts.; 30 cts. per doz.; postpaid, 40 cts. per doz.



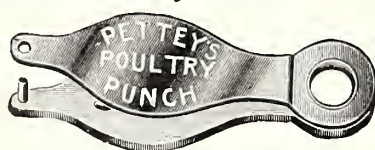
## Lime Nest-Egg

They look like real hens' Eggs. Made from pure sterilized sulphate of lime. This product is well known among poultry-raisers for its value in keeping nests in a clean, healthful condition.

They do not break or crumble or absorb and hold the cold. Price, 3 for 10 cts.; 30 cts. per doz. Postpaid, 40 cts. per doz.

## Petty's Perfect Poultry-Punch

One of the best punches on the market. All steel, nickel plated, punches clean, hole is right size, will not bruise the foot. Price 15 cts., postpaid.



## Moe's Ideal Poultry-Punch

An improved Punch, scissors type. Works easily, cuts cleanly, and does not pinch the foot.



Convenient to carry in vest-pocket and the lower end is an excellent cigar cutter.

Nickel-plated finish. Length 3½ inches.

No. 39. Ideal Punch ..... Each 35 cts.; postpaid 40 cts.

## Caponizers

Large profits await the raiser of capons. Pilling's instruments are the acknowledged leaders in this line.



## New Philadelphia Caponizing Set

This set has many admirers.

It consists of a knife, for making the incision; the spreader, for holding sides open; sharp hook, for piercing skin; the Lansdowne Remover, for removing the testicles. Cords with hooks are for holding the bird. Cup forceps for removing any foreign matter. They are fine instruments of the best workmanship. Prices (postpaid), in velvet-lined case \$3.50; in pasteboard box \$3.

## Pilling Special Caponizing Set

The finest set in the world for the price. It is used just the same as other Caponizing Sets, except that the Testicle Remover cuts, like a pair of scissors, the cord of the testicle clean and clear as a whistle. The instruments in this set are put up in oak case sent postpaid with full, easy-to-use directions on receipt of \$5, postpaid.



## Cornell Caponizing Set

Experiments in the use of various caponizing instruments recently carried on by E. W. Benjamin, Instructor of the Department of Poultry Husbandry at Cornell University, have resulted in the manufacture by us of the Cornell Caponizing Set.

This set—two Testicle Removers, Pilling-Farmer Twisting Scoop, and Pilling-Miles Remover—sells for the reasonable price of \$6, postpaid.



## Lansdowne Caponizing Set

Lansdowne Automatic Testicle Remover is, as its name implies, automatic, quick, easy to use, and just the remover for the beginner.

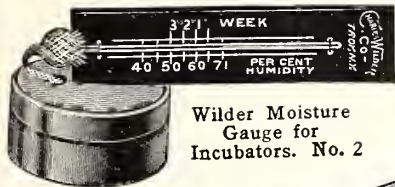
Does not have a lot of unnecessary springs which are liable to get out of order. The grasping loops are exactly same principle as the Miles Remover, which has been in use for fifty years, but our patent feature has made it perfect as to simplicity of the operation and to prevent making slips. Price \$4.50, postpaid.

## Incubator and Brooder Extras

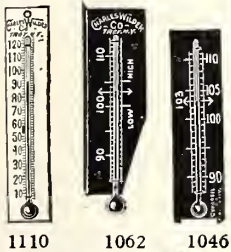
|   | Each   | Postpaid |
|---|--------|----------|
| No. 1 Lamp Bowl.....  | \$0 90 | \$1 00   |
| No. 2 Lamp Bowl.....  | 1 25   | 1 35     |
| No. 3 Lamp Bowl.....  | 1 50   | 1 60     |
| No. 1 Sun Hinge Burner. Uses ½-inch wick.....                   | 50     | 55       |
| No. 2 Sun Hinge Burner. Uses 1-inch wick.....                   | 75     | 80       |
| No. 3 Sun Hinge Burner. Uses 1½-inch wick....                   | 1 00   | 1 05     |
| Chimneys.....   | 50     | 55       |
| Nos. 1 and 2 Wicks. Dozen.....                                  |        | 30       |
| No. 3 Wicks. Dozen.....   |        | 40       |
| Argand Gas Burner, for incubators and lamp-heated brooders..... | 75     | 85       |
| Lamp Bowl for Buckeye Standard Incubators....                   | 1 00   | 1 10     |
| Lamp Bowl for Buckeye Style E Incubators.....                   | 1 00   | 1 10     |
| Lamp Burner for Nos. 1 and 2 Buckeye Incubators.                | 75     | 80       |
| Lamp Burner for Nos. 3, 4, and 5 Buckeye Incubators.....        | 1 00   | 1 05     |
| Lamp Burner for Nos. 14 and 16 Buckeye Incubators.....          | 75     | 80       |
| Lamp Burner for No. 17 Buckeye Incubator.....                   | 1 00   | 1 05     |
| Lamp Chimney for Buckeye Standard Incubators                    | 50     | 55       |
| Lamp Chimney for Buckeye Style E Incubators..                   | 50     | 55       |
| Gas Burner for Buckeye Style E Incubators.....                  | 2 00   | 2 15     |
| Wafers for Wafer Regulator, 3-in.....                           | 60     | 65       |
| Wafers for Wafer Regulator, 5-in.....                           | 1 25   | 1 30     |
| Wick for No. 27 Buckeye Blue Flame Brooder...                   | 40     | 45       |
| Wick for No. 28 and No. 29 Buckeye Blue Flame Brooder.....      | 65     | 70       |
| Lighting Rings for Reliable Brooder. 4 for 50 cts..             |        | 60       |

## Wilder Accurate Thermometers and Hygrometers

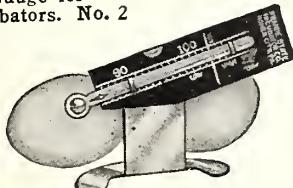
FOR INCUBATORS AND BROODERS. YOU CAN DEPEND UPON THEIR LASTING ACCURACY



Wilder Moisture Gauge for Incubators. No. 2



1110 1062 1046



1062, Mounted



1052



1116



125

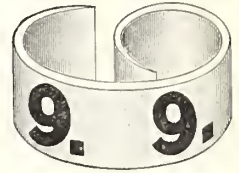
|  | Each   | Postpaid |
|--|--------|----------|
| No. 1046. Buckeye Incubator Thermometer.....                 | \$0 75 | \$0 85   |
| Buckeye Universal Thermometer.....                           | 1 00   | 1 10     |
| No. 1052. Cypher's Incubator Thermometer.....                | 75     | 85       |
| No. 1062. Prairie State Incubator Thermometer, mounted.....  | 90     | 1 00     |
| No. 1110. 5-inch Brooder Thermometer (fits any Brooder)..... | 60     | 70       |
| No. 1116. Brooder Thermometer.....                           | 1 00   | 1 10     |
| No. 125. Brooder Thermometer.....                            | 1 25   | 1 35     |
| No. 2. Wilder Moisture Gauge.....                            | 1 15   | 1 25     |
| No. 5796. Tyco's Incubator Hygrometer (no illus.)            |        | 1 75     |

## Bandettes (Colored Celluloid Leg-Bands)

COLORS ARE FAST AND WILL NOT FADE

Bandettes are easily and quickly applied. Simply open out band, hook it on leg, and allow it to close. Made of special spring celluloid and will close up to the original size.

Furnished in six colors—Blue, Red, Yellow, Green, Cerise (Pink), and White. Sold only in unbroken sets of 25 of one color.



- No. 4. For Baby Chicks. Numbered 1 to 250.  
 No. 6. For Pigeons. Numbered 1 to 500.  
 No. 9. For Leghorns. Numbered 1 to 3,000.  
 No. 11. For American Breeds. Numbered 1 to 2,000.  
 No. 12. For Asiatics. Numbered 1 to 250.

| Nos. 4 and 6   | Postpaid | Nos. 9, 11 and 12 | Postpaid |
|----------------|----------|-------------------|----------|
| 25 Bands.....  | \$0 35   | 25 Bands.....     | \$0 60   |
| 50 Bands.....  | 65       | 50 Bands.....     | 1 00     |
| 100 Bands..... | 1 20     | 100 Bands.....    | 1 80     |
| 250 Bands..... | 2 80     | 250 Bands.....    | 4 35     |
| 500 Bands..... | 5 25     | 500 Bands.....    | 8 50     |

## Perfecto Spiral Leg-Bands

KNOW YOUR HENS ON SIGHT

In ten colors—Red, Green, Amber, Black, White, Pink, Yellow, Ruby, Light Blue, and Dark Blue.



Mark each bird for its pen. Give each pen a different color. Mark old birds and pullets differently and know what you are doing.

- No. 1. ¾-in. diam. for Asiatic Breeds.  
 No. 2. ¾-in. diam. for American Breeds.  
 No. 3. 1½-in. diam. for Leghorns, etc.  
 No. 4. ½-in. diam. for Bantams.  
 No. 5. ⅝-in. diam. for Pigeons.  
 No. 6. ¼-in. diam. for Baby Chicks.

| Spiral Leg-Band     | Postpaid | Nos. 5 and 6   | Postpaid |
|---------------------|----------|----------------|----------|
| Nos. 1, 2, 3, and 4 |          | 12 Bands.....  | \$0 10   |
| 12 Bands.....       | \$0 15   | 25 Bands.....  | 20       |
| 25 Bands.....       | 30       | 50 Bands.....  | 35       |
| 50 Bands.....       | 50       | 100 Bands..... | 50       |
| 100 Bands.....      | 75       | 500 Bands..... | 2 25     |
| 500 Bands.....      | 3 60     |                |          |

## Colored Leader Adjustable Leg-Bands



For a general purpose band that provides quick and accurate identification, this Colored Leader cannot be equaled. It will fit anything from Bantam to Cochon, or Tom Turkey or Goose. Light in weight, but of sturdy design and construction. Continuous line of color around the band so that a bird can be distinguished, so far as brood or pen is concerned, from a distance.

A "Crackerjack" for trap nesting. Furnished in Red, Blue, Green, White, Yellow, or Pink. Not numbered above 200.

PRICES (Postpaid)

|                   |                   |                    |
|-------------------|-------------------|--------------------|
| 12 Bands...\$0 30 | 50 Bands...\$1 00 | 500 Bands...\$6 50 |
| 25 Bands... 60    | 100 Bands... 1 50 | 1,000 Bands..12 50 |

## Seamless Leg-Bands (Pigeon Sizes Only)

Our Seamless Pigeon-Bands are made of pure aluminum, well finished up, and will give satisfaction. Made in three sizes, Nos. 1, 2, and 3.

PRICES (Postpaid)

|                   |                   |                    |
|-------------------|-------------------|--------------------|
| 12 Bands...\$0 30 | 50 Bands...\$1 00 | 500 Bands...\$6 50 |
| 25 Bands... 60    | 100 Bands... 1 50 | 1,000 Bands..12 50 |

## Double Clinch Pigeon Bands



DOUBLE CLINCH LEG BANDS PIGEON SIZES

PRICES (Postpaid)

|                   |                   |                    |
|-------------------|-------------------|--------------------|
| 12 Bands...\$0 20 | 50 Bands...\$0 45 | 500 Bands...\$3 50 |
| 25 Bands... 25    | 100 Bands... 75   | 1,000 Bands.. 6 50 |

## Moe's Aluminum Leg Bands



Made of sheet aluminum, with large raised numbers, easy to read from a distance. Adjustable for any size fowl. Accurately made and quickly applied.

Packed in paper cartons of 12, 25, 50 and 100 bands each. Numbered from 1 to 999. Prices, postpaid.

### No. 130—Adjustable Aluminum Leg Bands

|                |        |                   |        |
|----------------|--------|-------------------|--------|
| 12 bands ..... | \$0 15 | 100 bands .....   | \$0 75 |
| 25 bands ..... | 25     | 500 bands .....   | 3 50   |
| 50 bands ..... | 45     | 1,000 bands ..... | 6 00   |

## French Poultry-Killing Knife



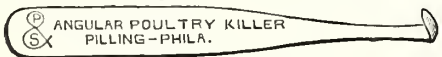
Price 60 cts., postpaid

## Safe-Edge Killing Knife



Exactly same as French Killer except cut on one side only. Price 60 cts., postpaid.

## Pilling Angular Poultry-Killer



Price 60 cts., postpaid

## Philadelphia Gape-Worm Extractor

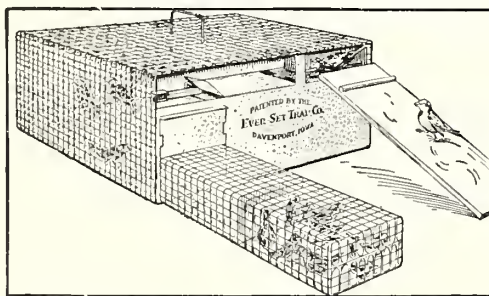


Price 30 cts., postpaid

## Round Galvanized Iron Feed-Bins

These Feed-Bins are just the thing to keep your feed from rats and mice. They are 18 inches in diameter by 27 inches high and hold a 100-pound sack of feed. The lid can be used for filling the feed-hoppers. Price, \$3.75.

## Ever-Set Sparrow Trap



Made of 5/8-inch galvanized hardware cloth. They have been fully tried out and have caught as high as 65 sparrows in one day in summer, and 40 in one day in winter in a single trap.

Size of trap 18 x 18 x 12 inches, with 3 x 5 x 18-inch receiving-cage (for drowning), with complete instructions.

**To the Farmer and Poultryman.** Fifty sparrows eat daily the equivalent of a quart of wheat. Very likely you have many more than 50 sparrows fattening on the high-priced feed that you intended for your poultry. An Ever-Set Sparrow Trap, in the month of June, 1919, caught 562 English sparrows in a back yard in the city of Davenport—1,529 in five months (June to October). How much feed would these 1,529 have stolen from your poultry-yard each day? Without stopping to figure it is clear that an Ever-Set Trap pays for itself in a very short time. Price \$4, postpaid \$4.25.

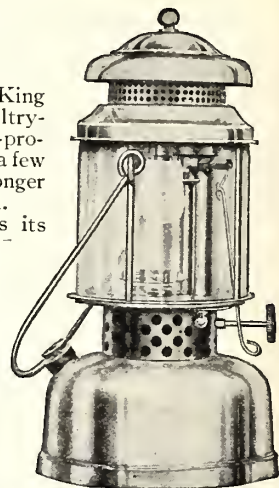
## Storm King Lantern

400 CANDLE-POWER

Get more eggs by hanging a Storm King Lantern in your poultry-house. Poultrymen everywhere are increasing egg-production by using them in hen-houses a few hours each night and morning—longer feeding hours increase the egg-yield.

The Storm King makes and burns its own gas from common motor gasoline, giving more light than twenty oil lanterns and costing a little over a cent for three hours' use. Absolutely safe. Burns in any position and in any wind. No danger, even if tipped over. Tested by egg-producing authorities and has their unqualified approval.

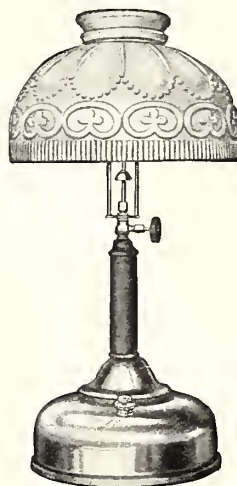
Capacity of fount, 1 quart—burns 12 to 15 hours on one filling. Height 13 inches, weight 4 pounds. Equipped with Mica Chimney, 1 No. 1A Rag Mantle, and all accessories. Shipping weight, 5 pounds. Price \$7.50, postpaid \$7.75.



## "Nulite" Match-Lite Lamp

Lights quickly with a match. Just scratch a match and light it.

Brilliant, Economical, Convenient, Clear.



This is the most popular style of match-generating, match-lighting Lamp and is used extensively in home, office and store.

It is a faultless, flawless Lamp without wick, chimney, smoke, smell, grease, dirt, trouble or danger. It is twenty times as powerful as an ordinary wick coal-oil Lamp and will burn continuously for 15 hours on one filling, three pints of common motor gasoline.

Height 22 inches, weight 6 lbs., polished nickel plate finish, equipped with two No. 1B Rag Mantles, No. 110 white embossed shade, wrench tip cleaner, extra rubber washer and instructions.

Price \$9, postpaid \$9.25.

No. 110M. 400 Candle-Power

## The Acme Egg-Grading Scale

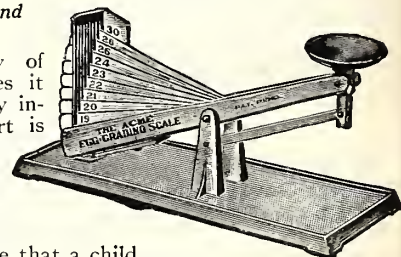
Graded Eggs Mean a Higher Market Value

Automatic, Accurate, and Convenient

It is made entirely of aluminum, which makes it rustproof and practically indestructible. Every part is accurately made, carefully tested, and will meet the requirements of any state bureau of weights and measures.

This Scale is so simple that a child can operate it. By placing an egg in the cup, the beam will automatically adjust itself. The lowest visible number on the blades will indicate the weight in ounces of one dozen like eggs.

Acme Egg-Grading Scales will accurately grade all eggs ranging from 19 ounces per dozen to 30 ounces per dozen. Price \$3, postpaid \$3.10.



**Rutland Egg Preserver**

Prepared from a high grade of water glass manufactured especially for the purpose.

There are many so-called egg preservers on the market; some are inferior water glass; some are not water glass at all. Water glass, not especially prepared for preserving eggs, may contain too much alkali; water glass can sometimes be bought in bulk by the quart, but this is not a safe way to purchase it as one knows nothing about the strength of the solution. This is a most important point in the preserving of eggs. The cost of eggs is such that it does not pay to take chances.

The prudent house-wife uses only an egg preserver prepared especially from a high grade of water glass—**Rutland Egg Preserver**.

A one-pint can will be sufficient for preserving about eight dozen eggs; the contents of a one-quart can will preserve from fifteen to twenty dozen.

|                 |        |                 |
|-----------------|--------|-----------------|
| Pint Can.....   | \$0 15 | Postpaid \$0 30 |
| Quart Can.....  | 25     | 45              |
| Gallon Can..... | 90     | 1 20            |

**Day-Old Chicks**

We make a specialty of furnishing our customers with Day-Old Chicks of all leading breeds, from high-bred stock. Beginning early in March, we will receive from near by hatcheries from one to three shipments per week. To secure the breeds desired and the choicest stock we suggest that orders be placed at least a week or ten days before the chicks are wanted. Prices quoted on request.

**O. K. Sanitary Poultry Litter**

**THE IDEAL PRACTICAL LITTER THAT COSTS SOME POULTRYMEN NOTHING**

This wonderful peat moss litter pays the poultry keeper in two ways—besides saving labor and trouble and insuring most healthful sanitary conditions.

First, when once the proper amount is put in your poultry-house, you are through for the season. O. K. Sanitary Litter does not have to be taken out like hay, straw, or other material that soon becomes filthy and dangerous. O. K. Litter absorbs the moisture of the droppings, coats over the solids, remains clean and effective for months, because it is light and very porous. Prevents odors, avoids dampness.

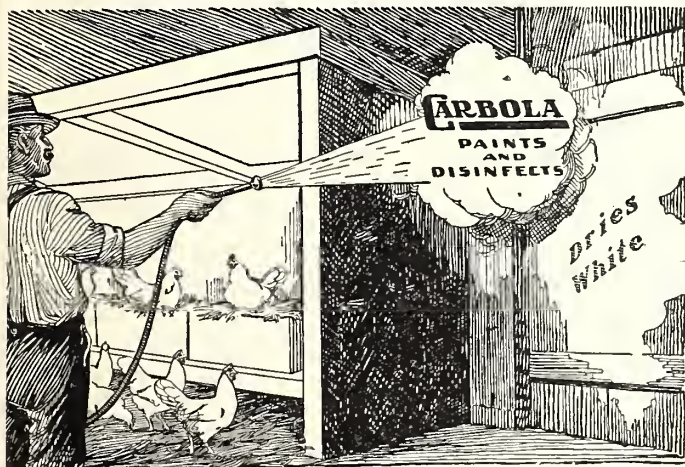
Second, O. K. Sanitary Poultry Litter is most economical. Its first cost by the bale is only a trifle more than hay, but as it lasts for months, it is far cheaper in the end. And all the time it is saving in the labor of removing and replacing. But above that there is another saving—a big profit to the user—and that is the worth of the used litter as a most valuable fertilizer.

Some poultrymen sell the "seasoned" litter to gardeners, florists, and others for more than the original litter cost. Others realize what this powerful nitrogen-filled litter is worth and use it themselves. Either way it has paid a big profit.

Use it for your laying-houses and for brooders in the spring. Put it on the dropping-boards.

Bales weigh about 175 pounds and cover about 80 square feet, 3 inches deep. Price, \$4 per bale; 5-bale lots, \$3.75 per bale.

Small sample bale, sufficient to cover 8 square feet, 2 inches deep (enough for the ordinary brooder) \$1.10, postpaid \$1.25.



**PAINTS AND ALSO DISINFECTS • DRIES WHITE**

**CARBOLA**

*The Disinfecting White Paint*

**So Easy to Use**

**In Poultry Houses, Cow-Barns, Etc.**

Carbola is a white paint and powerful disinfectant combined in powder form. Simply stir the powder in a pail of water and it is ready for brush or sprayer—no waiting or straining. *Does not clog sprayer. Won't peel or flake.*

The powerful disinfectant does not evaporate but keeps its strength on the walls. Carbola will not spoil even in water and may be kept standing in pail to be used as wanted. One pound covers about 100 square feet.

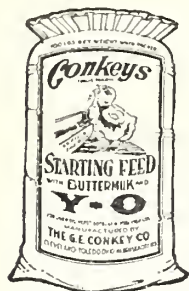
**Results Are Sure and Certain**

Carbola is neither poisonous nor caustic—harmless to the smallest chick or stock that licks a painted surface. It gives walls and ceilings a smooth, white finish, increases the light, improves the appearance, and helps make buildings clean, sweet-smelling and free from mites and contagious disease germs. There is nothing better than Carbola for dairies, poultry-houses, cellars, dog-kennels, rabbit-hutches, garages, tree trunks, etc.

It has been used for years by more than 100,000 dairy and poultry farmers and by agricultural colleges and experiment stations. We have a big file of letters from farmers and storekeepers praising it. Give it a trial—you will never regret it.

As a Louse Powder for use on cattle, poultry, horses, hogs, dogs, etc., the dry powder will be found most satisfactory. The dry powder is applied like any other louse powder, and is very effective—a first-class louse powder at 10 cts. a pound.

5 lbs. 75 cts., postpaid 90 cts.; 10 lbs. \$1.25, postpaid \$1.50; 25 lbs. \$2.85, postpaid \$3.20; 50 lbs. \$5, postpaid \$5.75; 200 lbs. \$18, not prepaid.



# Conkey's

THE ORIGINAL

## BUTTERMILK STARTING FEED

NOW CONTAINS Y-O



**Feed It for Six Weeks and Raise Every Chick You Hatch with No Danger from Rickets or Leg Weakness**

### Ingredients

Buttermilk, Cornmeal, Corn-Feed Meal, Oatmeal, Wheat Middlings, Raw Bone-meal, Blood-Flour, Meat-meal, Crude Milk Albumen,  $\frac{1}{2}$  per cent Salt, Y-O (Cod-Liver Oil, Yeast, Soybean Oil-Meal, Wheat Middlings,  $\frac{1}{4}$  per cent Red Oxide of Iron).

### Analysis

Protein, 14 per cent; Fat, 5.50 per cent; Fiber, 5 per cent; Nitrogen-Free Extract, 59 per cent; Carbohydrates, 64 per cent.

This starting mixture is high in nutrients and low in fiber, so the sensitive organs of the chicks are not overtaxed by digesting waste material of no food value. Avoid feeds high in fiber—they're dangerous.

### Makes Chicks Husky

Conkey's is a ready-prepared feed containing all elements for perfect growth of young fowls. It puts vim and vigor into your baby chicks at a time when they need it most. It makes them

strong and husky, so they can fight off the chick diseases which kill hatches so rapidly.

Conkey's gives your chicks buttermilk in a concentrated, sanitary form, not too much and not too little. Feed it dry. The lactic acid is just what is needed as an aid in the prevention of digestive and bowel troubles. With the buttermilk is a combination of clean, wholesome grains, balanced in just the right proportion to help the little fellows over the critical first SIX weeks and give them a good start toward healthy maturity.

### How to Feed First Six Weeks

Chicks should have pure drinking-water, with chill removed, and fine grit from the start, but no feed for 48 to 72 hours. Then give Conkey's Buttermilk Starting Feed. That's all the feed they'll need for the first SIX weeks; add greens the second week. During the fourth week, scatter Conkey's Chick Grains in the litter to induce exercise. After the sixth week begin gradually changing to Conkey's Growing Mash.

## Conkey's Gecco Growing Mash with Y-O

### Ingredients

Buttermilk, Corn-Feed Meal, Wheat Bran, Wheat Middlings, Fine Ground Oats, Raw Bone-Meal, Meat Scrap, Soybean Oil-Meal, Old Process Oil-Meal, Alfalfa Meal, Crude Milk Albumen,  $\frac{1}{2}$  per cent Salt, Y-O (Cod-Liver Oil, Yeast, Soybean Oil-Meal, Wheat Middlings,  $\frac{1}{4}$  per cent Red Oxide of Iron).

### Analysis

Protein, 18 per cent; Fat, 5.50 per cent; Fiber, 7.50 per cent; Nitrogen-Free Extract, 50 per cent; Carbohydrates, 57.50 per cent.



Don't neglect your growing stock! This mash takes the little fellows after they have had a good start and supplies the necessary materials for a strong frame and solid flesh. It contains no charcoal, grit, nor shell. You get what you pay for—all pure, clean food. Remember, you can't make something from nothing—bone- and muscle-building require the proper feed and plenty of it. In addition scatter in the litter Conkey's Growing Grains.

## Conkey's Gecco Egg Mash, with or without Y-O

A high-grade Egg Mash at a price that will surprise you

### Analysis

Protein, 20 per cent; Fat, 5 per cent; Fiber, 7 per cent; Nitrogen-Free Extract, 46 per cent; Carbohydrates, 53 per cent.

This feed is wholesome grain, buttermilk, meat, and bone in precisely the right proportion to keep your flock in prime condition and at the same time make readily available each component part of the egg. Remember, properly balanced feeding is the secret of large egg-production. If your hen hasn't exactly the ingredients required she simply won't lay. You can't beat this—it's a law of nature. Conkey's Gecco Egg Mash is the result of years of study and tests. The hens relish it and lay accordingly. With this mash give Conkey's Scratch Grains in deep litter, using about one-half as much Scratch Grain as mash. Get Gecco! It gets most eggs at least cost.



## Conkey's Poultry Scratch Grains

MILLED IN GRADED SIZES TO FIT SPECIAL FEEDING PERIODS

### Conkey's Chick Grains

A specially prepared cracked grain feed to be fed to little chicks at the end of the third or fourth week in connection with Conkey's Buttermilk Starting Feed. Scatter in the litter so as to induce exercise and prevent toe-picking.



### Conkey's Growing Grains

Made from cracked grains larger in size than chick grains and balanced more for growing stock. This should always be scattered in the litter for the growing birds so as to keep them good and busy, and is fed in connection with Conkey's Buttermilk Growing Mash.

### Conkey's Scratch Grains

This is for all grown birds, containing the larger grains properly proportioned and scattered in the deep litter for general exercise. It is fed in connection with Buttermilk Laying Mash and rounds out a hen's daily ration.



For Prices on Above Feeds See Our Monthly Poultry Feed Price-List Accompanying this Catalogue

# Pratts

## QUALITY POULTRY FEEDS

Pratts are the highest quality poultry feeds made in America. Backed by over fifty years experience with poultry, with every ingredient carefully selected and processed in the most modern poultry feed mill in the United States, they are scientifically and practically correct. Pratts feeds give results when others fail and are better than the best you ever used. There is a Pratt feed for every poultry need and every age of fowl. Start your birds on Pratts and follow the Pratt system if you want real success and profit.

Start your chicks on



### Pratts Buttermilk Baby Chick Food

This original "baby food for baby chicks" has taken all the guess, worry, and loss out of raising baby chicks. It is life insurance for chicks. Millions of pounds are used annually by successful poultrymen all over the world. Use it for your chicks for the first month or six weeks and watch results. Chicks grow strong, uniform, vigorous and sturdy, and are free from leg weakness, pasting up, and digestive troubles.

Pratts is guaranteed to raise every livable chick. Equally good for young turkeys, guineas, ducks, pheasants, and game-birds. A perfect "baby food" for young fowls. In packages and 5-, 10-, 25-, 50-, and 100-lb. bags.

After the husky little fellows are about a month old, switch them to



### Pratts Buttermilk Growing Mash

Made of the most wholesome ingredients, it supplies an abundance of every element needed for making bone, muscle, feathers and health. Insures vigor and quick, uniform growth. Feed Pratts Buttermilk Growing Mash and watch them grow. When they are matured give them



### Pratts Buttermilk Laying Mash

the food that "makes eggs." Every ounce is real food that nourishes and keeps your hens laying and healthy. It is so appetizing the hens eat it greedily and the more they eat the more they lay. You fill the hopper and the hens will fill the nest. Fine for moulting hens and breeding stock. Most economical judged by eggs and profit. Pratts is a real "laying mash." There is none "just as good."



### Pratts Scratch Feeds

are good clean feeds with no grit, dirt, charcoal, shell or other cheap or useless filler. There is a Pratt Scratch Feed to be used with every Pratt Buttermilk Mash, with which they form perfect balanced rations. Sweet, clean, honestly made feeds.

Pratts Chick Size Scratch Feed for Baby Chicks.

Pratts Intermediate Size Scratch Feed for growing and Laying Stock.

Pratts Large Size Scratch Feed for Laying Hens.



For Prices on Above Feeds See Our Monthly Poultry Feed Price-List Accompanying this Catalogue

# Semi-Solid Buttermilk

(TRADE MARK)

With or without Cod-Liver Oil

A life-saver for chicks. A remedy for White Diarrhea. Promotes rapid, healthy growth. Hustles hens back to health and laying after epidemics of roup, chicken-pox, or cholera. Rids hens of worms. Unequaled as an egg-producer for pullets and hens. Semi-Solid is pasteurized condensed buttermilk. Has greater medicinal and food value than liquid or dried buttermilk because the patented process gives Semi-Solid the greatest lactic acid content of any form of buttermilk.

Semi-Solid Buttermilk with 4 per cent Cod-Liver Oil added. This combination is the most practical and economical method of feeding cod-liver oil. It is palatable and, furthermore, this oil is Vitamine "D" tested. For extra-heavy egg-laying strains, it will prevent egg paralysis.

Best results are obtained by feeding Semi-Solid Buttermilk just as it comes in the package. No other animal protein is required when laying hens are fed Semi-Solid at rate of 5 lbs. for every 100 head.

Look for the Semi-Solid label. It assures not only the fullest feeding values, but also the full tonic and medicinal effect which have made Semi-Solid famous.

Semi-Solid Buttermilk comes in 1-gallon cans, 5-gal. pails, kegs, half-barrels, and 500-lb. barrels.

Ask for booklet giving further information.



## F. P. C. Chick Manna

It is the pioneer in Special Prepared Chick Food, being brought on the market in 1884 when specially prepared chick feeds were unknown. Many imitations and substitutes have come on the

market since with great claims, but none have had the forty-three years of successful results as F. P. C. Chick Manna.

It is unlike and distinctly different from other chick feeds and we know of no other to equal or compare with it.

It is specially prepared for bringing the tender little creatures through the most critical period of their life by regulating and strengthening their fine and tender organs, and aiding in the prevention of these fatal attacks of dreaded bowel trouble and other chick ailments.

Every package guaranteed to give satisfaction or money back. Feed dry or moistened.



## Miscellaneous Seeds and Grains

|                 |                |             |
|-----------------|----------------|-------------|
| Cracked Corn    | Hemp Seed      | Barley      |
| Whole Corn      | Canary Seed    | Wheat       |
| Pigeon Corn     | Rape Seed      | Buckwheat   |
| Cracked Wheat   | Kaffir Corn    | Millet      |
| Pinhead Oatmeal | Pigeon Peas    | Vetches     |
| Hulled Oats     | Whole Flaxseed | Oil-Meal    |
| Sunflower Seed  | Flaxseed Meal  | Gluten Meal |

Our stocks of the above are carefully selected and will be found equal to any on the market.

## POULTRY BOOKS

SEE PAGE 207 FOR OUR LIST OF POULTRY BOOKS

## "Chamberlain's Perfect" Chick Starter and Developing Feed

with Buttermilk, Cod-Liver Oil, Animal Proteins

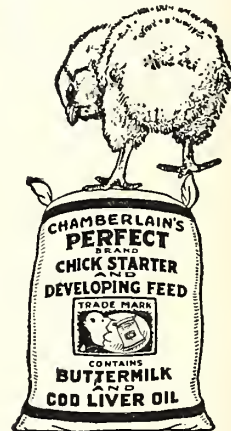


Nature's food for Baby Chicks, Turkey Poults, Bantams, Pheasants, and Ducklings.

This original and scientifically correct starting-food is the only dry, granular, baby chick food with animal proteins, buttermilk, and cod-liver oil—all complete in one sack.



It is a wheat and oat-meal basis food, having ground meat, bone, charcoal, and all other essential ingredients. No corn—made right—no bowel trouble.



## Spratt's Chick Meal Nos. 3, 5, and 12

(A Cooked Food)

No. 3 Coarse; No. 5 Medium; No. 12 Fine

Is prepared strictly according to modern scientific methods and is the result of careful and exhaustive experiments.

It has been demonstrated and is admitted by all experts that to rear birds successfully and bring them to the highest state of perfection they must have, while very young, a cooked food, and their corn diet must be carefully limited. This food should be composed of cereals, meat, vegetable, bone, and shell in judicious combination. Such is Spratt's Patent Chick Meal.

The price of our food seems high, but a trial will prove that it is the cheapest and most economical that can be used.

No. 3 is used as a conditioner for the show-room and has no equal for that purpose.





### Darling's High Protein Meat Scraps

Made from clean, fresh trimmings from butcher shops, thoroughly cooked. After the cooking, every possible bit of water and grease is extracted in tremendous presses, and the solid cakes of meat are evenly broken up by special machinery. It contains more digestible protein, and less fat, moisture and waste, than any other brand of meat scraps or so-called beef scraps.

#### ANALYSIS

Protein.....50 per cent  
Fat (minimum).... $\frac{1}{2}$  of 1 per cent  
Fiber (maximum).....3 per cent  
Furnished in two grades, regular and fine.

### Greene's Fish Scraps

There is an ever-increasing demand for Fish Scraps for poultry feeding, as they have been proved a great egg-producer, and poultry are very fond of them. They are used extensively as the animal matter in the leading dry mash on the market today. Poultry seem to eat a mash with Fish Scrap more readily than one containing beef scrap. They are made from fish meat and bone and run from 40 to 60 per cent protein and 3 to 5 per cent fat.

### Yankee Brand Dried Buttermilk

It contains everything found in the whole milk and whole milk is universally recognized as the best food for man or animal. It is 100 per cent digestible. It contains no fiber. Every ounce of it is utilized in maintaining and building animal tissue, as it contains the most valuable constituents of all foods. In feeding dried Buttermilk you feed milk solids. Liquid Buttermilk contains 90 per cent water—dried Buttermilk averages less than 8 per cent moisture. Contains 32 to 33 per cent milk protein and 1 per cent fat.

### Butterfly Brand Dry Skim-Milk

A sweet, cream-colored powder, rich in vitamins and almost totally soluble in water. It carries an average analysis of 36 per cent protein, 1 per cent fat and no fiber. One hundred pounds of Dry Skim-Milk represents the total milk solids found in 1,200 pounds of liquid skim-milk, and supplies the vitamins, protein, and mineral matter (especially calcium) which are essential in the diet of all young animals for rapid growth.

### Conkey's Pigeon Feed

A first-class mixture containing peas, Kaffir corn, wheat, buckwheat and millet.

#### ANALYSIS

Protein,  $13\frac{1}{2}$  per cent; Fat,  $2\frac{1}{2}$  per cent; Fiber, 5 per cent.

### Alfalfa Leaf-Meal

Ground fine and made principally from green alfalfa leaves.

#### ANALYSIS

Crude Protein not less than 20 per cent; Crude Fat not less than 2 per cent; Crude Fiber not more than 18 per cent.

### Cut Red Clover

Cut Red Clover is one of the best green feeds for winter egg-production. The grade we offer is the purest and best to be had. Makes an excellent litter for chicks.

### Darling's Blood Meal

Darling's Blood Meal runs very high in protein (80 to 90 per cent) and contains very little moisture and fat. It is manufactured expressly for feeding purposes; guaranteed to be absolutely pure.

### Darling's Special Bone-Meal

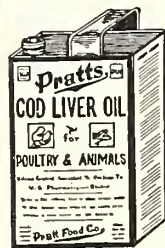
Darling's Special Bone-Meal was developed to meet the urgent need for a feed rich in available phosphates, palatable, and suited to the mineral requirements of all live stock and poultry. It is finely ground for convenience in mash mixtures and is especially valuable during growing and moulting periods for poultry. As a part of dairy cattle and hog rations, Darling's Special Bone-Meal provides minerals in an organic form that are readily absorbed by the body system, insuring quicker and better results in growth and production. Recommended by those who have used it.

### Poultry Charcoal

Keeps poultry strong, healthy, and in good laying condition. Aids digestion, corrects wrong feeding and prevents disease. Fowls young and old should have free access to it at all times. We carry two sizes in stock—Medium and Fine.

### Pratt's Cod-Liver Oil

PREPARED SOLELY FOR POULTRY AND ANIMALS



Cod-Liver Oil derives its great feeding properties and value from its content of vitamins "A" and "D," of which it is the richest known source. Pratt's Cod-Liver Oil is a pure, clear, light yellow, tested oil, with a vitamin content guaranteed to conform to the standard of the United States Pharmacopœia.

Pratt's Cod-Liver Oil, added to the feed of baby chicks, aids growth, promotes health, prevents leg weakness, and decreases mortality. The use of Cod-Liver Oil for layers results in better health, fewer deaths, more and better-shelled eggs, increased hatchability of eggs, quicker growth, and greater weight in market stock.

Add it to the feed of dogs, cats, cows, steers, hogs, sheep, squabs, turkeys, and pet stock. Gal. can \$2.45, postpaid \$2.75; 5-gal. drum \$10; 10-gal. drum \$18, f.o.b. Pittsburgh; 30-gal. drum, with faucet, \$46.50; 55-gal. drum, with faucet, \$79. Shipped from factory, freight prepaid.



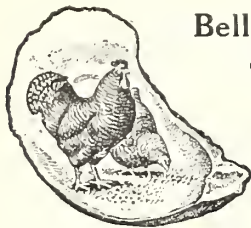
COD-LIVER OIL IN POWDER

For chickens, pigeons, ducks, geese, and fowl of all kinds; for hogs, steers, calves, run-down horses, foxes, and all live stock. "Coliverol" increases egg-laying, is a sure conditioner, a wonderful body-builder if fed in proportions of 3 pounds of "Coliverol" to 100 pounds of feed, dry or wet mash. It is a sure profit-maker for poultrymen. It means earlier layers, more eggs, fatter killers, better beef for the stockman. Easy to mix with feed. Simply sprinkle it through the feed and mix it in a jiffy.

|                   |        | Postpaid |
|-------------------|--------|----------|
| 5-lb. pkg.....    | \$1 25 | \$1 40   |
| 10-lb. pkg.....   | 2 25   | 2 45     |
| 25-lb. drum.....  | 5 00   | 5 35     |
| 100-lb. drum..... | 18 00  |          |

### Ikton Soluble Organic Sulfur

A scientific product containing pure, soluble, organic sulfur. When added to feeds it replaces the sulfur that is used up by the fowl in egg-laying and breeding. Ikton, with its harmless, internal, antiseptic qualities, increases the vitality and productivity of the birds and tends to keep them clean and free of germs and parasites inside. Use one ounce to every 100 pounds of dry feed for chicks up to ten weeks of age—only two ounces for older birds. Lb. can \$3; postpaid \$3.10.



## Belle Brand Crushed Oyster Shells

Make Poultry Pay!

Crushed Oyster Shells have long been recognized as a most important article for poultry yards. They should be kept where the fowls can have easy access to them all the year round, as experience has demonstrated that fowls need them in summer as well as winter. They in natural form, act as a grit, and produce a firm, hard shell. Belle Brand shells are dry, and, having been carefully screened, are free from dust and dirt.

We carry two sizes in stock, Coarse and Fine, the prices of which are the same.

## Pearl Grit

A clean, white limestone Grit which is of proper hardness to serve as a grinder and at the same time, because of its high calcium carbonate content, supplies the necessary minerals for growing chicks and laying hens. The claims made for Pearl (Limestone) Grit have been verified at a great number of experimental stations in the United States. Furnished in two sizes—coarse for poultry and fine ground for chicks.



## Mica Crystal Grit

Analysis proves that Mica Crystal Grit is a grit containing a proper combination of Mica, Quartz, Aluminum and Iron essential to all kinds of poultry. The peculiar formation of this grit, containing a large per cent of small flakes of Mica, assures at all times a sharp grinding surface. The grit will not wear smooth but will keep sharp until entirely worn out.

The grit wears out but does not dissolve, thereby giving a longer service than other grits.

Furnished in three sizes, "Poultry," "Pigeon," and "Chick," all at the same price.

## Broschkowsky's Health Grit

For pigeons. Has a friend in every fancier who has tried it.

Every ingredient entering into the composition of Broschkowsky's Health Grit is the best obtainable, clean and is prepared amid sanitary surroundings. One trial will convince you of its superior quality. It contains nothing injurious of any nature; keeps your birds' digestive organs in prime order; provides the proper shell material; assists the birds in the moult; raises more and stronger youngsters; and wards off many troublesome diseases.

## Red Cross Health Grit

Since 1903

For Pigeons, Fowls, and Cage-Birds

Positively the Best. A manufactured mixture containing a great variety of gritty particles and materials with tonic properties, including everything the bird needs in proper proportions.

You save all other trouble and expense when using Red Cross, as only water and good feed in addition are required to keep birds in perfect health.

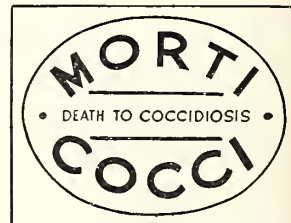
They Eat It Like a New-Found Luxury. All birds relish it. Contains in condensed form the best tissue-building ingredients for birds known to science, and the greatest variety of gritty matter. A reconstructive tonic mixture of only pure properties. Never use chicken grit for pigeons.

Good grain alone will not make hens lay, squabs plump, or birds sing; they have no teeth and must have grit to grind their food and it should be a palatable grit mixture they relish.



## A Reliable Remedy for Coccidiosis or Bloody Diarrhea.

This dreadful disease has caused the loss of thousands of chicks, and often entire flocks have been practically swept away. Mort-Cocci was developed by a poultryman of many years' experience. It is used and recommended by many leading poultrymen. The remedy should always be kept on hand for immediate use at the first symptoms of the disease. Add it to the drinking-water. A gallon will eradicate the disease from 500 chicks. Complete directions on package. Qt. \$1.50, 1/2 gal. \$2.50, gal. \$4; postpaid \$1.65, \$2.75, and \$4.40.



## "Black Leaf 40"

WORKS WHILE CHICKENS ROOST

Paint it on the roosts

A sure method for controlling body-lice. Is also effective when applied as a spray against poultry mites. One ounce will paint about 12 or 15 running feet of roost. Paint it undiluted on the top of the roosts and cross-arms, about half an hour before the birds perch for the night. When used as a spray against poultry mites, dilute Black Leaf 40 at the rate of about one tablespoonful to one gallon of water and add about 1/2 ounce of ordinary laundry soap. Dissolve the soap in hot water. 1-oz. bottle 35 cts., 1/2-lb. bottle \$1.25, 2-lb. tin \$3.25. (Not mailable.)

## Oculum

Scientific Remedy and Preventive for Cholera, Roup, White Diarrhea, and Sore Head; also Cure for Gapes

Give your hens Oculum and they will get heavier, their combs will get red and stay red; they will lay much better and more regularly, and in the fall and winter, you will get eggs while the other fellow is vainly looking for the eggs that do not come.

Give your chicks Oculum—they will eat greedily, grow rapidly, and develop quickly into broilers and pullets.

|              |          |
|--------------|----------|
| Bottle       | Postpaid |
| Large Bottle | \$0 50   |
|              | 1 00     |

## Walko White Diarrhea, Roup and Cholera Tablets

For the prevention and treatment of white diarrhea, roup and cholera. Especially valuable for white diarrhea among incubator chicks. Tends to increase strength and vitality and should be given in drinking-water as a preventive from the time chicks are out of the shell. 50 cts. and \$1; postpaid 60 cts. and \$1.10.

## Walko (Tonix) Egg-Maker

A general poultry tonic and vitalizer. Builds rich, red blood. Makes smooth, glossy feathers and healthy, red combs. You'll get dozens of eggs where you got only a few before—and a bigger percentage of fertile ones. 50 cts. and \$1; postpaid 60 cts. and \$1.10.

## Roto Pigeon Salt

A Necessity to the Health of Pigeons

Roto Pigeon Salt is compressed into bricks that are not affected by any climatic conditions. Size of Bricks, 7 1/2 x 3 1/2 x 2 inches.

|           |        |          |
|-----------|--------|----------|
| 1 Brick   | \$0 25 | Postpaid |
| 12 Bricks | 2 25   | \$0 35   |
|           |        | 2 75     |

## Rabbit Salt Spools

No feeder or holding device necessary, as Spools are fastened to wall by means of nail or screw through hole in center.

|  |                 |
|--|-----------------|
| Size, 2 inches diameter, 7/8 inch thick. |                 |
| 1 Spool                                  | Postpaid \$0 15 |
| 12 Spools                                | 1 00 1 15       |

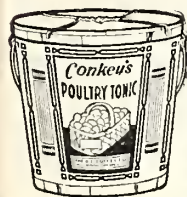
For prices on above feeds, see our monthly poultry feed price-list accompanying this Catalogue



## Have a Conkey Corner In Your Poultry-House. It'll Save Many Birds

Only vigorous, healthy birds can produce profits. Keep disease out of your flock by having on hand remedies for treating common ailments. A "Conkey Corner" is fine insurance against loss of valuable fowls. We recommend Conkey's Remedies because they are absolutely dependable. We sell them on this guarantee—*your money back if you are not satisfied*. Send 6 cents in stamps for valuable Poultry Book.

### Conkey's Poultry Tonic



Unequaled as a laying tonic, moulting powder, chick conditioner, and poultry regulator. Not a stimulant, not a bit of filler, and no red pepper. It puts an edge to appetites, aids digestion, and helps your birds get more out of their feed. 1½ lbs. 25 cts., postpaid 30 cts.; 3¼ lbs. 50 cts., postpaid 60 cts.; 7 lbs. \$1, postpaid \$1.20; 12 lbs. \$1.60, postpaid \$1.85; 25 lbs. \$3, postpaid \$3.40.

#### Conkey's Roup Remedy.

Is recognized all over the world as the remedy for this deadly contagious disease. Always have it ready. 25 cts., 50 cts., \$1 and \$2.35; ppd. 30 cts., 55 cts., \$1.05 and \$2.50.



**Conkey's Roup Pills.** For individual treatment. 25 cts., 50 cts., and \$1; postpaid, 30 cts., 55 cts., and \$1.05.

#### Conkey's White Diarrhea Remedy.

Once you have used this old reliable preparation you will never be without it. As a preventive of bowel troubles, white diarrhea and other digestive complaints, it has given great satisfaction for many years. Once started, diarrhetic conditions often sweep away the whole hatch—hundreds of chicks. Play safe—keep this remedy in the drinking-water until the danger period is past. 25c., 50c., \$1; postpaid, 30c., 55c., and \$1.05; breeder size (1,200 tablets) \$3.75, postpaid, \$3.85.

**Conkey's Limberneck Remedy.** Relieves ptomaine poisoning, called "limberneck." 50 cts.; postpaid, 55 cts.

**Conkey's Gape Remedy.** Relieves chicks of the choking gape-worm. 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.

**Conkey's Canker Special.** For canker and bronchitis; relieves and soothes. 50 cts.; postpaid, 55 cts.

**Conkey's Cholera Remedy.** Stops digestive disorders and so-called cholera. 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.



### Conkey's Y-O

**Yeast with Cod-Liver Oil in Powder Form. Insures Vitamins**

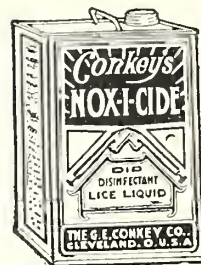
Successful poultry raisers are finding these two ingredients indispensable in poultry rations. By supplying needed vitamins, cod-liver oil and yeast banish leg weakness and other chick troubles, promote rapid and vigorous growth, and keep hens in the pink of condition, able to produce a heavy lay. Both commodities must be used, but to get a supply of both and add them to poultry rations is a troublesome, sticky job, and also expensive. Conkey's Y-O, which is a combination of yeast and cod-liver oil made by a special patented process, solves the problem in an economical way. The product comes in the form of a dry chocolate-brown powder, which is free running and readily mixed with any poultry mash. Also fine for rabbits, foxes, dogs, and cats.

**NEW LOW PRICES!**

Lb. 55 cts., 2 lbs. \$1, 5 lbs. \$2, drums (25 lbs.) \$7.50; postpaid 65 cts., \$1.15, \$2.20, and \$7.90; 50 lbs. \$14, 100 lbs. \$22.50.

### Conkey's Nox-i-cide

A disinfectant, dip, lice liquid, germ-destroyer, and spray. Has a hundred uses in the home, on farm, in poultry-yard. Nox-i-cide mixes with water, making a cheap, effective germicide. Cleans and purifies coops, houses, runs, brooders, incubators, founts, and utensils. Fine for household and sickroom. Reliable for barns and outhouses. Pt. 50 cts., qt. 80 cts., 2 qts. \$1.30, gal. \$2, 5 gals. \$9.25, 10 gals. \$17.75, express extra. Ask for barrel prices.



**Conkey's Chicken-Pox or Sorehead Remedy.** Very effective for this repulsive disease. 25c. and 50c.; postpaid, 30c. and 55c.

**Conkey's Scaly Leg Remedy** destroys parasites causing this troublesome affection. 25 cts.; postpaid, 30 cts.

**Conkey's Poultry Conditioner** quickly brings back to normal after sickness. Highly recommended for showroom use. Just good tonic. 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.

**Conkey's Lice Powder** destroys body lice. They suck the energy from your flock. Dust Conkey's on your hens and in the dust-bath. 20 cts., 35 cts., 75 cts., and \$2.60; ppd., 25 cts., 40 cts., 85 cts., and \$2.85.



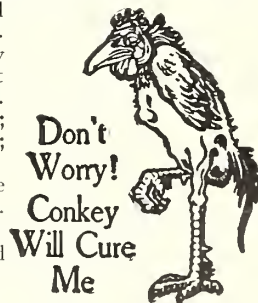
**Conkey's Head Lice Ointment** gets the big murderous fellows that bore through the little chicks' skulls. 10 cts. and 25 cts.; postpaid, 15 cts. and 30 cts.

**Conkey's Lice Fix.** An ointment, applied easily and quickly. Three or four applications a year keep the bird practically free from body lice. 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.

**Conkey's Mite Liquid** made especially to destroy the spider-like mites that laugh at ordinary lice preparations. Qt. 60 cts., 2 qts. 90 cts., gal. \$1.50; postpaid 70 cts., \$1.10, and \$1.80; 5 gals. \$7. Express extra.

**Blackhead Remedy.** This disease usually develops in young turkeys. 50 cts.; postpaid, 55 cts.

**Poultry Worm Remedy.** 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.



### Conkey's Poultry Laxative

Wherever a laxative or purgative is needed this remedy is just the thing for birds—by varying the dosage you can produce either a mild or a strong effect. Works without a debilitating after-effect.

Experts say, and we have found through experiments, that a poultry laxative given every week or two not only keeps birds in better condition but increases the egg-yield very materially. If you are not employing this method, try it and be convinced.

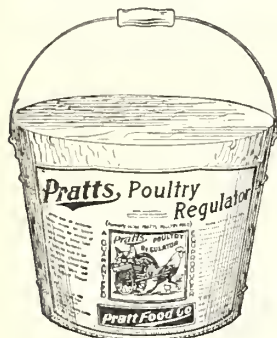
Packages, 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.; breeder size (5 lbs.) \$2.75, postpaid, \$2.90.



# Pratts

## Poultry Regulator • Poultry Remedies Buttermilk Baby Chick Food

HEALTHY BIRDS AND LOTS OF EGGS, THE TWO BIG THINGS IN POULTRY-RAISING, USUALLY FOLLOW THE USE OF



### Pratt's Poultry Regulator

Pkgs. 25 cts., 50 cts., \$1.10; postpaid, 30 cts., 60 cts., \$1.30; 12-lb. pkg. \$1.40, postpaid \$1.65; 25-lb. pails \$3, postpaid \$3.40; 100-lb. drum \$10

It builds up vitality, promotes sound digestion, sharpens appetite, thus helping to put birds into condition for heavy egg-laying or winning blue ribbons.

Given to breeding stock it increases the fertility of eggs, strong in vitality, that will hatch chicks that will grow. Use it if you want big hatches of healthy chicks that will develop into husky pullets and cockerels.

Pratt's is the original Poultry Regulator of America and is in use by the most successful poultry raisers everywhere.

It will help prevent many of the common poultry ailments.



Roup is the alert foe of poultry. Its ravages can be prevented and protection given your flocks by using

### Pratt's Roup Tablets or Powder

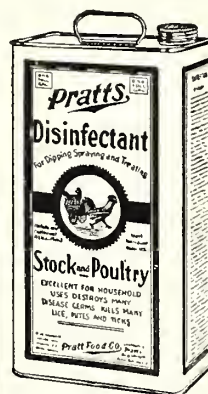
Its healing properties are quickly taken into the system. For genuine Roup as well as colds and similar diseases. 25 cts., 50 cts., and \$1; postpaid, 30 cts., 55 cts., and \$1.10.

### Pratt's Powdered Lice-Killer

sprinkled on hens, in nests, dust-baths, etc., will quickly clean up the poultry house. Non-irritating; non-explosive. In sifting top boxes.

An unequalled powder for killing lice on horses, cattle, hogs, dogs, and cats; moths, insects and bugs in houses, stables, and barns. Safe and effective for killing plant-eating insects. 12 cts., 25 cts., 50 cts., and \$1; postpaid, 15 cts., 30 cts., 55 cts., and \$1.10.

When hens are not laying, look for lice. These pests cost poultrymen many dollars.



Keep disease away from poultry. Kill lice and mites. Disinfect the poultry house with

### Pratt's Disinfectant FOR STOCK AND POULTRY

A quick, effective germicide, insecticide, and deodorant. As a spray around stables, cow and hog-lots, and for use on dogs, cats and pets generally, it is unsurpassed for effectiveness. It is non-irritating and its pleasing, clean odor makes it admirable for household use. Pt. 35 cts., qt. 55 cts., 2 qts. 90 cts., gal. \$1.50; postpaid, 45 cts., 70c., \$1.10, and \$1.80; 10-gal. can \$12.25.

### Pratt's Red Mite Special

Red Mites, fleas, lice, blue bugs, ticks, and other blood-sucking vermin cannot exist where it is used. Painted or sprayed around the poultry-house, or nests, roosts, etc., it is sure death to all mites and lice. Powerful, efficient, lasting. Use it where others have failed. It will surprise you. Qt. 50 cts., 1/2 gal. 90 cts., gal. \$1.50; postpaid, 65 cts., \$1.10 and \$1.80.

### Pratt's Gape Compound

An effective, easy remedy that will prevent further losses and save the sick chicks. Try it. 25c. and 50c.; postpaid, 30c. and 55c.

### Pratt's Head-Lice Ointment

Kills the head lice instantly. It soothes, heals, is safe to use on all parasitic diseases. Can, 30 cts.; postpaid, 35 cts.



### Pratt's Scaly-Leg Ointment

Usually affords relief in a few days. It kills the parasites which cause the trouble and promotes a new, healthy growth of skin to take the place of the diseased parts. 30c. and 60c.; postpaid, 35 cts. and 65 cts.

### Pratt's Worm Remedy

The most effective and practical flock treatment for poultry that has been discovered. Rids flocks of large, round and tape-worms as well as many other kinds. Safe, easy, and economical to use. Does not require handling or individual dosing of the birds or affect egg-production or growth during treatment. 50 cts. and \$1, postpaid 60 cts. and \$1.15; 25-lb. bag \$3.25, postpaid \$3.60.



### Pratt's Sore-Head and Chicken-Pox Preparation

It acts quickly, checking the spread of the contagion and healing the sores. 30 cts. and 60 cts.; postpaid, 35 cts. and 65 cts.

### Pratt's Special Compound

It is administered in the drinking water and will be found of great value in aiding in the relief of indigestion, sour crop, dysentery, diarrhea, and bowel trouble. Packages, 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.

### Pratt's Condition Tablets

Used extensively by fanciers to keep their exhibition stock in the pink of condition. Help prevent colds, roup, and liver troubles. 25 cts. and 50 cts.; postpaid, 30 cts. and 55 cts.



### Pratt's Chick Diarrhea Tablets

In the drinking-water from the first drink. This remedy has saved many dollars' worth of chicks for poultry raisers. You can depend on it. To secure best results it is essential that these tablets be used from the start. Badly infected chicks should be killed at once as they are impossible to save. 25c., 50c., and \$1; postpaid, 30c., 55c., and \$1.10.

## We Recommend Burrell-Dugger Poultry Remedies

Burrell-Dugger Poultry Remedies have been used by thousands of poultry owners, from coast to coast, for many years, and they have more than made good.

They are specialized remedies for poultry, produced in an up-to-date modern laboratory, just as scientifically and carefully as medicines for human beings.

Knowing the satisfaction which Burrell-Dugger remedies have given our customers, we do not hesitate to recommend them strongly. Every one is guaranteed to satisfy you, or your money will be promptly refunded in full.



### STOPS CHICKS DYING

Recommended and guaranteed for the prevention and treatment of white diarrhoea, cholera and black-head.



Every year, over half the chicks hatched die from chick cholera, diarrhoea, and other bowel diseases. This has been shown by U. S. Government reports.

Avicol, used in the drinking water, will stop these losses. Thousands of poultrymen will tell you that they now raise nearly every chick of every hatch. Many of them were losing chicks right and left before they started using Avicol. Within a few hours after receiving Avicol, the sick, drooping chicks begin to revive and soon are lively and healthy.

Easy to give. Simply drop an Avicol Tablet in the drinking water. The chickens doctor themselves.

After you have once tried Avicol, you would no more think of trying to raise baby chicks without it than you would think of denying them food.

Avicol should be in the very first water the little chicks drink. And it costs so little that it will pay you to keep it in the drinking-water all the time, for all the flock, old and young.

Avicol is fully guaranteed. Your money will be promptly refunded without question or quibble if it doesn't satisfy you perfectly.

Price, 50 cts., postpaid 55 cts.; large size (holds two and one-half times 50-ct. size), \$1, postpaid \$1.10.

## TALCIMIZED SODIUM FLUORIDE

### KILLS CHICKEN LICE

The U. S. Department of Agriculture and most leading State Agricultural Colleges endorse and recommend the Sodium Fluoride method of killing poultry lice.

Lice have probably cost the poultryman more money than any other poultry ailment. Wherever present, their effect is seen in stunting the growth, injuring the health, and reducing the egg-production of the whole flock.

After years of study and after numerous tests they report it the most effective, positive way to get rid of poultry lice. They say it kills all lice—both old and young—including the lice that hatch from eggs present on the fowl at the time of treatment.

For positive results be sure to get the genuine Talcimized Sodium Fluoride (call it T. S. F.) put up by the Burrell-Dugger Co. It is specially processed and prepared especially for poultry use, and is in a convenient, shaker-top package, bearing the U. S. Government's instructions for applying. One small package will treat about 40 chickens.

Price, small size 35 cts., postpaid 40 cts.; large size (twice as much), 60 cts., postpaid 70 cts. Special size (five times 60-ct. size), \$2.50, postpaid \$2.65.



## DON SUNG

Makes Hens Lay

GUARANTEED

Don Sung (Chinese for egg-laying) acts directly on the egg-laying organs and is beneficial in every way. It makes hens healthy and happy. They scratch and sing. Pullets develop earlier. The whole flock lays regularly in any season, any weather, when eggs are scarce and high. Don Sung is no trouble to use. It costs nothing to try.

We invite any poultry-raiser to make the following test, entirely at our risk: Give Don Sung to fifteen hens. Then watch results for 30 days. If it doesn't show you a big increase in eggs, if it doesn't pay for itself and pay you a good profit besides, your money will be promptly refunded.



Trial Size 50 cts., postpaid 55 cts.; \$1 size, postpaid \$1.10 (3 times 50-ct. size); \$5 size, postpaid \$5.10 (6 times \$1 size).

## Roup-Over

TRADE-MARK

"The Over-Night Roup Remedy"

A New, Prompt, Positive  
Guaranteed Treatment

For

### ROUP, CANKER and COLDS IN POULTRY

ROUP WORKS FAST—KEEP ROUP-OVER HANDY

Keep a bottle of Roup-Over on hand, and at the first symptom of a cold in your flock, start giving it to every affected bird. It clears the air-passages and brings relief with magic quickness. Roup-Over is easily given. It comes in a liquid form and a few drops does the work.

This famous remedy is positively guaranteed to give complete, prompt, and positive results, or your money will be refunded in full. There is nothing on the market like Roup-Over for roup, colds, and canker.

Price 50 cts., postpaid 55 cts.; large size \$1, postpaid \$1.10 (three times 50-ct. size).



## Rust's Poultry Preparations

Rust's Poultry Preparations have been used extensively by poultry raisers for the past forty years, and are considered by many as the best on the market. We sell them because we know they are absolutely reliable and we can recommend them to our poultry friends.



### Rust's Egg-Producer

A Tonic and Conditioner

Get eggs at all seasons by feeding your hens Rust's Egg-Producer. This preparation supplies just what the hens need for producing eggs and plumage. It is not a stimulant and does not exhaust the fowls, but keeps them in a first-class condition. A trial package will convince you.

|                        | Postpaid |                        | Postpaid |
|------------------------|----------|------------------------|----------|
| 1-lb. pkg. .... \$0 25 | \$0 35   | 6-lb. pkg. .... \$1 00 | \$1 20   |
| 2 1/2-lb. pkg. .... 50 | 60       | 10-lb. pkg. .... 1 50  | 1 75     |
|                        |          | 25-lb. pkg. .... 3 25  | 3 65     |



### Rust's Roup Pills

For Treating Individual Cases

For individual treatment of fowls and pigeons. They act directly on the glands and mucous membranes, allay feverish symptoms, and are one of the best remedies known for roup, catarrh, colds and distemper in fowls and pigeons.

|                              | Postpaid |
|------------------------------|----------|
| 50 pills in box. .... \$0 25 | \$0 30   |
| 112 pills in box. .... 50    | 60       |
| 250 pills in box. .... 1 00  | 1 10     |

### Rust's Roup Powder (For Roup, Catarrh, Colds, Etc.)

Roup is probably one of the most contagious diseases among poultry, and every poultryman should take precautions to safeguard his flocks against this deadly disease. An ounce of prevention is worth a pound of cure. Rust's Roup Powder kept regularly in the drinking-water during the fall and winter will keep your flocks free from this dreaded disease.

|                        | Postpaid |
|------------------------|----------|
| 3-oz. box. .... \$0 25 | \$0 30   |
| 8-oz. box. .... 50     | 60       |
| 18-oz. box. .... 1 00  | 1 10     |

### Rust's Lice Powder

For Dusting Poultry and Domestic Animals

Containing no naphthalene or other odorous ingredients.

|                        | Postpaid |
|------------------------|----------|
| 5-oz. box. .... \$0 10 | \$0 20   |
| 15-oz. box. .... 25    | 35       |
| 48-oz. box. .... 50    | 60       |



### Rust's Climax Condition Powder

For Diarrhea, Gapes, Cholera, and Other Poultry Diseases

Mixed with the mash food and fed three or four times a week (beginning soon after the chicks are hatched) will keep the fowls free from diarrhea, gapes, cholera and other poultry diseases. Rust's Climax Condition Powder also makes the young chicks develop their plumage and grow faster on the same

|                         | Postpaid |                        | Postpaid |
|-------------------------|----------|------------------------|----------|
| 13-oz. pkg. .... \$0 25 | \$0 35   | 5-lb. pkg. .... \$1 00 | \$1 15   |
| 2-lb. pkg. .... 50      | 60       | 8-lb. pkg. .... 1 50   | 1 70     |
|                         |          | 20-lb. pkg. .... 3 25  | 3 55     |

## Dr. LeGear's Remedies



**Dr. LeGear's Poultry Prescription.** Contains tonics for the blood, nerves, and egg-organs—laxatives for the bowels—regulators for the digestive organs—minerals for the feathers, bone, and bone tissues. Should be mixed with all laying- and feed-mash. With each 50 pounds of laying- and feed-mash, mix one pound of Dr. LeGear's Poultry Prescription. During moulting-time, and when disease is present, more should be used. Furnishes essential elements for strong, healthy growth; builds up vitality; produces better fertility; gives maximum egg-production. Quickens moult. 25 cts., 50 cts., and \$1; postpaid 30 cts., 60 cts., \$1.15; 25-lb. pail \$3, postpaid \$3.35.

**Dr. LeGear's Chick Diarrhea Tablets.** Good for the prevention and treatment of many cases of bowel troubles resembling white diarrhea, etc. among baby chicks. 25 cts. and 50 cts.; postpaid 30 cts. and 55 cts.

**Dr. LeGear's Roup Pills.** For the treatment of individual birds; for many cases of roup, colds, and kindred ailments of all kinds of poultry. Each pill is a dose. Especially useful in the showroom or where one or a few fowls are sick. 25 cts.; postpaid 30 cts.

**Dr. LeGear's Roup Remedy.** An excellent remedy for roup, colds, catarrh, and canker in poultry and pigeons. 25 cts. and 50 cts.; postpaid 30 cts. and 55 cts.

**Dr. LeGear's Poultry Worm Powder.** For the flock. Intestinal worms in poultry are common in all sections of the country and are causing heavy losses in many flocks. Worm your poultry twice a year with Dr. LeGear's Poultry Worm Powder or Poultry Worm Pills to prevent such a loss to your flock. 4-lb. pkg. \$1; postpaid \$1.15.

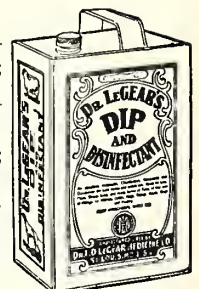
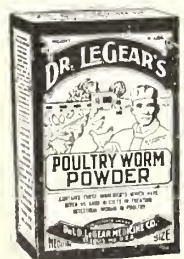
**Dr. LeGear's Poultry Worm Pills.** For the individual bird. 50 pills 50 cts., 120 pills \$1; postpaid 55 cts. and \$1.10.

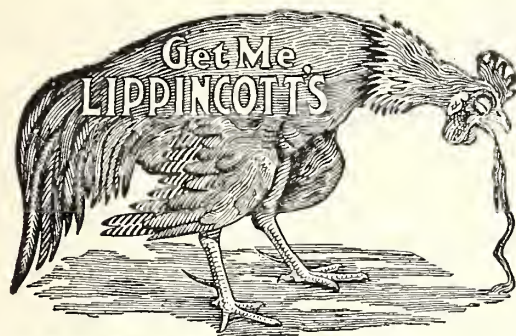
**Dr. LeGear's Lice Powder.** Quick and effective in getting rid of lice and mites on poultry or in nests. Kills them as if by magic. Put up in handy sifter-top cans. Easy to apply. 25 cts.; postpaid 30 cts.

**Dr. LeGear's Head Lice Remedy.** For head lice on chicks, setting hens, and all kinds of poultry, pigeons, and birds. 25 cts.; postpaid 30 cts.

**Dr. LeGear's Poultry Bowel Regulator.** For many cases of loose bowels and diarrhea. 25 cts.; postpaid 30 cts.

**Dr. LeGear's Dip and Disinfectant.** An invaluable antiseptic, insecticide, germicide, and deodorant. No poultry-yard should be without it. Keeps your poultry-houses, brooders, incubators, and yards clean and healthful and free from disease germs, vermin, etc. Good for itch, mange, lice, and ticks on live stock. Keeps the hair and skin in healthy condition 8-oz. bottle 30 cts., qt. 65 cts., gal. \$1.75; postpaid 40 cts., 80 cts., and \$2.05.





## ONE NIGHT ROUP CURE

**Lippincott's** Has No Equal for

Roup, Gapes, Canker, Chickenpox, Cholera, or Diarrhea

Lippincott's One-Night Roup Remedy has never failed to give quick results when used in the proper way and the birds properly housed. 25 cts., 50 cts., and \$1 per bottle; postpaid, 35 cts., 60 cts., and \$1.10.

### Whiting's Roupene

A real remedy for roup, canker, and diphtheritic roup. You do not have to quarantine the roup-y fowls. 50 cts. and \$1 per bottle, postpaid.

### Whiting's White Diarrhea Remedy

It destroys the disease germ, cures the chicks, and prevents at once the spread of the disease. 50 cts. and \$1 per bottle, postpaid.

### Dr. Hess' Poultry Panacea



makes poultry healthy; makes hens lay; not a stimulant, but a tonic, that tones up the dormant egg organs, brings back the scratch and cackle, and compels each hen to put her share of eggs in the market basket. It also contains internal antiseptics that counteract disease; insures a healthy, singing poultry flock. Cost but a trifle—a penny's worth enough for thirty hens per day.

|                   | Each   | Postpaid |
|-------------------|--------|----------|
| 1½-lb. pkg. ....  | \$0 25 | \$0 35   |
| 5-lb. pkg. ....   | 75     | 90       |
| 12-lb. pkg. ....  | 1 50   | 1 70     |
| 25-lb. pail ....  | 3 00   | 3 35     |
| 100-lb. drum .... | 10 00  |          |

### Lee's Egg-Maker

|                  | Postpaid |                   | Postpaid |
|------------------|----------|-------------------|----------|
| 2-lb. pkg. ....  | \$0 40   | \$0 50            |          |
| 5-lb. pkg. ....  | 90       | 1 05              |          |
| 12-lb. pail .... | 2 00     | 2 25              |          |
|                  |          | 25-lb. pail ....  | \$3 75   |
|                  |          | 100-lb. drum .... | 12 00    |
|                  |          |                   | \$4 10   |

### Lee's Germozone

20-tablet pkg. 25 cts., 75-tablet pkg. 75 cts., 200-tablet pkg. \$1.50; postpaid 30 cts., 85 cts., and \$1.60.

### Lee's Egg-O-Hatch

For applying to eggs during incubation to strengthen the growing chicks, to weaken the egg-shell, and to better the hatch. 50 cts.; postpaid, 55 cts.



## CARBOLINEUM

Made in U. S. A.

GUARANTEED TO KILL CHICKEN MITES IN POULTRY-HOUSES. APPLIED ONCE A YEAR

*More Eggs—Healthy Chickens*

Avenarius Carbolineum will not only kill all vermin by direct contact, but, if sprayed or brushed, it will penetrate all cracks and crevices and reach the mites at close quarters and effectually stop their propagation.

**Guarantee.** We guarantee that one thorough application of Avenarius Carbolineum, either by brush or sprayer, to the interior walls, dropping-boards, roosts, etc., of buildings, after a previous cleaning, and no matter whether they are of wood, tar paper, or plaster, will exterminate mites in same for a whole year, or purchase money will be refunded.

PENNSYLVANIA STATE COLLEGE DEPARTMENT OF POULTRY HUSBANDRY, PROF. H. C. KNADEL, State College, Pa.: We have been using Carbolineum with very good success and you can rest assured that when we are in need of a good mite destroyer you will receive our order.

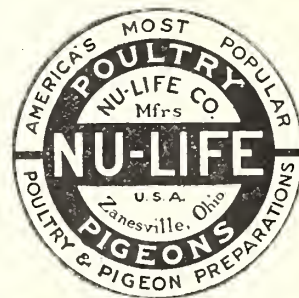
#### PRICES

Gal. can \$1.75, 5-gal. can \$7.25, 10-gal. drum, \$13, f. o. b. Pittsburgh; 35-gal. steel barrel, \$1.10 per gal.; 55-gal. steel barrel, \$1.05 per gal., shipped from factory, freight prepaid.

## Nu-Life Remedies

### Nu-Life Pills

For poultry, pigeons, and turkeys. Unexcelled conditioner for exhibition poultry, pigeons, and pit games. Unequaled as a remedy for going light, bowel trouble, indigestion, etc. A valuable aid in treating roup, and, if given in time, will stop most of the ills known to afflict poultry, pigeons, and turkeys. Should be given to all birds that are run down, off their feed, or not producing fertile eggs. Two sizes, 30 cts. and \$1, postpaid.



### Nu-Life Special Pills

These pills are a highly concentrated combination of iron, nux vomica, quinine, pepsin, cod-liver oil, etc. They are especially valuable for the small mouth varieties of pigeons as they are considerably smaller than the regular Nu-Life Pills. They will accomplish the same results. Price, 40 pills, 50 cts.; 100 pills, \$1, postpaid.

### Nu-Life Tonic (In Powder Form)

Is intended for flock or individual treatment. Is valuable to the busy fancier who has no time to give Nu-Life Pills. It can be placed in the mash-feed or drinking-water. Excellent for bowel trouble in old or young chickens and will quickly restore stunted chicks back to a healthy growth. Two sizes, 25 and 50 cts., postpaid.

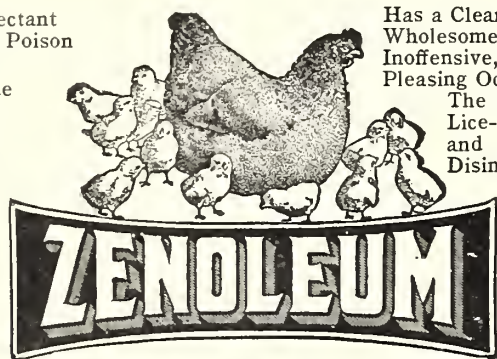
### Nu-Life Germicide Tablets

For the prevention and treatment of germ diseases affecting the mucous membranes and digestive tracts of fowl or beast. Especially recommended for the treatment of roup and canker in poultry and pigeons, snuffles and colds in rabbits and pct stock and for cuts, bruises, sores, etc.

One package will make 50 gallons of medication for internal use or 50 quarts for external use. Sold in one size, 50 tablets, 50 cts., postpaid.

**NU-LIFE REMEDIES** are sold under a guarantee. If for any reason you are not satisfied, your money will be refunded.

Disinfectant  
Won't Poison  
Won't  
Explode  
Won't  
Burn



Has a Clean,  
Wholesome,  
Inoffensive, and  
Pleasing Odor  
The Surest  
Lice-Killer  
and  
Disinfectant

A single quart is all that is necessary to rid 100 hens of lice, mites, and germ filth; it cures and prevents all ordinary poultry ailments and diseases—contains nothing that is injurious—insures cleanliness—and safeguards your poultry's health and your own profits.

|  |        | Postpaid |
|--|--------|----------|
| 8-oz. can, making 6 gals. of fluid     | \$0 35 | \$0 45   |
| Qt. can, making 25 gals. of fluid      | 75     | 90       |
| 1/2-gal. can, making 50 gals. of fluid | 1 25   | 1 45     |
| 1-gal. can, making 100 gals. of fluid  | 2 00   | 2 30     |
| 5-gal. can, making 500 gals. of fluid  | 8 00   |          |

## Lice Exterminators

### LEE'S LIQUID LICE KILLER

|          |        | Postpaid |
|----------|--------|----------|
| 1 quart  | \$0 60 | \$0 75   |
| 2 quarts | 90     | 1 10     |
| 1 gallon | 1 50   | 1 80     |

### LEE'S LOUSE POWDER

|                |    |    |
|----------------|----|----|
| 1-lb. pkg.     | 25 | 35 |
| 2 1/2-lb. pkg. | 50 | 60 |

### HESS'S LOUSE-KILLING POWDER

|                |    |    |
|----------------|----|----|
| 1-lb. pkg.     | 25 | 35 |
| 2 1/2-lb. pkg. | 50 | 60 |

**LICEMIST.** This liquid throws off vapors or fumes which quickly destroy head and body lice as well as other insect pests which infest poultry. When the house or coop is treated with LICEMIST according to directions with each bottle, these vapors penetrate the feathers of the birds, as well as cracks, crevices, scratching material, etc., in the house or coop, and kill insects without the necessity of handling each bird.

|           |        | Postpaid |
|-----------|--------|----------|
| Bottle    | \$1 00 | \$1 10   |
| 3 bottles | 2 50   | 2 65     |
| 1 gallon  | 4 00   | 4 30     |



## Barnes Emulsion

A harmless vitamin-containing product which can be fed with safety to domestic animals and poultry. It is not poisonous; contains no corrosive acids; is not a stimulant. If your chickens are backward in growth and development, have pale faces and shanks, and stand around droopy, with eyes closed, and if there is a steady and comparatively high mortality in your flock; if some of your birds "go light," then die; or if they are affected with brownish diarrhea, the cause

is likely to be from intestinal worm-infestation.

Other effects of worm-infestation include: irregularity in egg-laying, going lame, or developing "staggers," and particularly a condition of low vitality so they easily catch colds, sneeze, have watery eyes, canker, roup, and chicken-pox.

Obtain a can and prove to yourself its merit and effectiveness. Qt. \$1, postpaid \$1.15; gal. \$3, postpaid \$3.30; 5-gal. keg, \$12.50.

Ask for 32-page booklet "Common Sense vs. Worms."



Good News  
for  
Poultry Raisers  
Produces Marvelous  
Results

### STOPS

Roup  
Canker

Chicken-Pox  
Coccidiosis

White Diarrhea  
Blackhead

A powerful germ-killer with no poison—no acid—no oil. Clean—colorless—no odor afterwards.

Used in drinking-water, prevents spread of disease. Cleanses infected spots—kills the germs and cannot harm baby chicks. Ideal disinfectant for brooders and incubators. Kills odors and leaves no smell of itself.

The world's best poultry disinfectant.

Used by poultry farmers everywhere.

Just try it. Money-back guarantee on every package.

**CHEAP TO USE**—B-K is concentrated—a little goes a long way.

### PRICES

|               |        |            |         |
|---------------|--------|------------|---------|
| 1-qt. bottle  | \$1 25 | 5-gal. jug | \$12 50 |
| 1-gal. bottle | 3 00   |            |         |

Write for Bulletin 213C on poultry

## Kill Disease Germs with



Sterilac is a powerful, non-poisonous disinfectant, deodorizer and germicide for poultry. Contains the famous Dakin chloramine in an alkaline base. Tests made on the typhoid bacillus show Sterilac to be forty-five times more powerful than carbolic acid in its power to destroy disease-producing germs—yet safe to use—superior to sodium hypochlorite and coal-tar disinfectants for poultry, being non-poisonous and costing less.

Sterilac is economical to use and holds its strength in hot or cold weather. Fresh solutions can be made as required. Being in powder form it does not freeze. Cleanliness and sanitation are the only foundation upon which a successful poultry business can be built.

Invaluable to poultrymen, hatcheries, creameries, farmers, and dairymen. Thousands of users endorse Sterilac. For disinfecting, one teaspoonful makes five gallons of solution. Complete directions on package. 2-oz. bottle \$1, 8-oz. bottle \$2.50, 16-oz. bottle \$4.50; postpaid \$1.10, \$2.60, and \$4.65.

## Gold-Leaf Tobacco Powder

### CONTROLS POULTRY ROUND WORMS

Manufactured especially for this poultry purpose. So certain is its action that it may well be considered a specific for the control of this trouble. The treatment is exceedingly inexpensive.

Mix two pounds of Gold-Leaf Tobacco Powder with 100 pounds of dry mash. 2-lb. bag 25 cts., postpaid 35 cts.; 10-lb. package 65 cts., postpaid 85 cts.

## French's Poultry Mustard

The Original Poultry Mustard in America. Absolutely pure and prepared to produce more excellent results. Used and recommended by thousands of breeders, fanciers, and practical poultrymen.

It stimulates. It invigorates. It rebuilds lost and wasted tissues. It shortens the moulting period and starts the hens laying. A fair trial will convince you of its worth.

A teaspoonful for every six hens, mixed with the wet or dry mash, should be fed each morning.

|               | Each   | Postpaid |             | Each      | Postpaid |
|---------------|--------|----------|-------------|-----------|----------|
| 1 1/2-lb. box | \$0 45 | \$0 55   | 10-lb. box  | \$2 40    | \$2 60   |
| 3-lb. box     | 75     | 85       | 25-lb. box  | 5 50      | 6 00     |
| 5-lb. box     | 1 25   | 1 40     | 50-lb. keg  | 10 50     |          |
|               |        |          | 100-lb. keg | \$20 each |          |

## Dog Remedies

### Spratt's Dog Medicines

|  | Postpaid |
|--|----------|
| Anti-Rickets Tablets. A bone and muscle builder.....   | \$0 60   |
| Constipation Tablets. A gentle and effective laxative.....   | 60       |
| Cooling and Alterative Tablets. For heated blood, etc.....   | 60       |
| Cough Tablets. Generally effect a quick cure.....  | 60       |
| Digestive Tablets. For severe cases of indigestion.....  | 60       |
| Diarrhea Tablets. To relieve diarrhea.....   | 60       |
| Distemper Tablets. May be used as a preventive.....  | \$1 00   |
| Ear Canker Ointment. For both internal and external forms of this disease.....                                     | 75       |
| Eye Lotion Tablets. A safe and efficient remedy.....   | 60       |
| Flea Powder. For dogs, cats and other animals.....   | 30       |
| Mange Medicine.....  | 75       |
| Purgative Tablets. Perfectly safe and effective.....   | 60       |
| Tonic and Condition Tablets. To build up after sickness and to put in bench-show form, etc.....                    | 60       |
| Worm Capsules. An expellent of worms.....  | 60       |
| Worm Capsules for Puppies. May be given with perfect safety to puppies from six weeks old to six months.....       | 60       |
| Dog Soap (White). For fleas, lice, etc. Entirely free from poison. Nicely perfumed and produces a fine lather..... | 25       |



Postpaid

### Spratt's Cat Medicines

|                                  |      |
|----------------------------------|------|
| Distemper Tablets.....           | 1 00 |
| Tonic and Condition Tablets..... | 60   |
| Worm Capsules.....               | 60   |

### Glover's Imperial Dog Medicines

|   | Postpaid |
|---|----------|
| Mange Medicine. An aid for the treatment of mange in dogs, horses, and cattle.....                              | \$0 65   |
| Vermifuge. For expelling worms in dogs.....   | 65       |
| Worm Capsules. Contain the active principles of vermifuge.....  | 65       |
| Condition Pills. Contain alterative, digestive, tonic, and fever-subduing properties.....                       | 65       |
| Digestive Pills. For acute or chronic indigestion, gastritis or deranged condition of the digestive organs..... | 65       |
| Kennel and Flea Soap. An aid for keeping the skin and coat in a healthy condition. Per cake.....                | 25       |

For more than 50 years  
Sergeant's **DOG MEDICINES**



have kept pace with dog ailments.  
Every medicine in the line is safe  
and effective.

### Sergeant's Dog Medicines

|   | Postpaid |
|---|----------|
| Special Medicine. For treating distemper in pups and dogs.....                                    | \$1 20   |
| Mange Medicine. For treating skin and blood-diseases...   | 65       |
| Condition Pills. A tonic and alterative for pups and dogs...                                      | 60       |
| Sure-Shot Liquid. For pups and older dogs. For owners who prefer a liquid vermifuge.....          | 60       |
| Expectorant Medicine. For coughs, colds, and asthma in pups and dogs.....                         | 60       |
| Liniment. A splendid liniment for lameness, sore muscles, and swollen limbs in pups and dogs..... | 60       |

### SERGEANT'S DOG MEDICINES, continued

|  | Post-paid |
|--|-----------|
| Eye-Wash. For treating eye trouble in pups and dogs.....   | \$0 60    |
| Sure-Shot Capsules. For roundworms, pinworms and hookworms in pups of any size, age, and breed; also for large and older dogs.....                                     | 60        |
| Tapeworm Medicine. For tapeworms in pups and dogs.....   | 60        |
| Arsenic and Iron Pills. (Compound.) A blood purifier. For treating blood and skin diseases.....  | 60        |
| Canker Wash. For treating internal and external ear canker   | 60        |
| Mouth Wash. For treating sore mouth and black tongue ..  | 60        |
| Pepsin Tablets. (Compound.) For treating indigestion, vomiting, and colic in pups and dogs. Splendid for pups at weaning-time.....                                     | 60        |
| Intestinal Astringent. For treating diarrhea and dysentery in pups and dogs.....   | 60        |
| Diuretic Pills. For treating rheumatism and lumbago in pups and dogs.....  | 60        |
| Laxative Capsules. For treating constipation.....  | 60        |
| Carbolic Tar Soap. A splendid all-purpose soap.....  | 25        |
| Shampoo Soap. For scalp and hair.....  | 25        |
| Skip-Flea Soap. A wonderful bath soap for pups and dogs. Will kill fleas, lice, and certain other vermin. A pure high-grade soap that leaves coat soft and fluffy..... | 25        |
| Skip-Flea Powder. For fleas and lice on dogs and cats. Will not nauseate and is not injurious.....   | 25        |
| Nerve Sedative Medicine. For running, barking fits.....  | 2 00      |
| Sergeant's Dog Book Free. Ask for it.  |           |

### Ken-L-Ration

**Ken-L-Ration.** Composed of clean, wholesome meat, the best grade of cereals and Norwegian cod-liver oil in exactly the right proportions to make a perfect balanced ration. 1-lb. can 20 cts., postpaid 30 cts.; 3 for 50 cts., postpaid 65 cts.; 6 for \$1, postpaid \$1.20; case (48 1-lb. cans) \$6.75; 7-lb. can \$1, postpaid \$1.15; case (6 7-lb. cans) \$5.



**Hemo-Ration.** A blood-making food especially recommended for breeding animals of both sexes; for anemic or convalescent animals it is invaluable. It carries a large percentage of cod-liver oil and is rich in organic iron and calcium phosphate. 1-lb. can 20 cts., postpaid 30 cts.; 3 for 50 cts., postpaid 65 cts.; 6 for \$1, postpaid \$1.20; case (48 1-lb. cans) \$7.

**Kib-L-Biskit.** As near a perfectly balanced dry food as it is possible to produce. It is composed of fresh, lean meat, fresh blood, rice-flour, and cod-liver oil. This Biskit is entirely free from any sort of "filler." Every element used in its composition is rich in food value and for that reason you will require a lesser amount of this food in general feeding than you have been accustomed to when using the ordinary dog biscuit. 5-lb. bag 90 cts., postpaid \$1.05; 25-lb. bag \$3.50, postpaid \$3.85; 100-lb. bag \$12.

**Maro-Meat.** A clear meat-and-marrow product, too highly concentrated for feeding alone. Designed for large consumers, as a basic meat ration to be mixed with other and lighter material. A 2½-pound can of Maro-Meat supplemented with water and roughage will make from 8 to 12 pounds of appetizing, nourishing food for kennel use. 2½-lb. tin 65 cts., postpaid 80 cts.; case (18 2½-lb. cans) \$8.

**Pup-E-Ration.** Contains red meat, organic iron, calcium phosphate, Norwegian cod-liver oil, and marrow-fat—the elements necessary for growth of body, bone, and coat. 1-lb. can 20 cts., postpaid 30 cts.; 3 for 50 cts., postpaid 65 cts.; 6 for \$1, postpaid \$1.20; case (48 1-lb. cans) \$7.25.

**Pup-E-Crumbles.** Absolutely the most wholesome and appetizing dry puppy food on the market. For bone, muscle and coat it has no equal. 2-lb. can 50 cts., postpaid 60 cts.

**Ken-L-Sope.** Exterminator of fleas and other vermin. Cake 25 cts., postpaid.

**Kit-E-Ration.** A wonderfully balanced ration ready to serve. 1-lb. can 20 cts., postpaid 30 cts.



## Miller's A-1 Dog Foods

Eyes sparkling, ears alert, a glistening coat and responsive muscles—that's the kind of dog everybody admires and the kind that develops from regular feedings of these health foods for dogs.

All of Miller's A-1 cereal foods contain the important vitamins and essentials that every dog needs. The A-1 Ration is a granular cereal meat-food that is thoroughly cooked and ready for use. The Biscuit is blended and baked to a crispy freshness and is excellent for teeth, gums, and digestion. The Kibbled Biscuit is broken biscuit for mixing with meats, soups, broths, gravy, and vegetables. The Puppy Meal is especially adapted to the tender digestive organs of young puppies. It is granular in form and readily moistened with liquid foods.

| Ration            | Postpaid | Biscuit           | Postpaid | Kibbled Biscuit   | Postpaid | Puppy Meal        | Postpaid |
|-------------------|----------|-------------------|----------|-------------------|----------|-------------------|----------|
| 5-lb. carton..... | \$0 60   | 2-lb. carton..... | \$0 35   | 2-lb. carton..... | \$0 40   | 2-lb. carton..... | \$0 40   |
| 25-lb. sack.....  | 1 75     | 25-lb. sack.....  | 2 75     | 25-lb. sack.....  | 3 00     | 25-lb. sack.....  | 3 00     |
| 50-lb. sack.....  | 3 00     | 50-lb. sack.....  | 4 50     | 50-lb. sack.....  | 5 00     | 50-lb. sack.....  | 5 00     |
| 100-lb. sack..... | 6 00     | 100-lb. sack..... | 8 50     | 100-lb. sack..... | 9 00     | 100-lb. sack..... | 9 00     |

PRICES ON LARGER QUANTITIES UPON APPLICATION



IT'S COOKED, PREPARED, READY TO FEED

## Perfection Dog Food

Has been established and recognized for many years by dog and kennel-owners throughout the United States as the most satisfactory and economical meat-cereal food on the market.

Perfection is manufactured in the preferred meat-cereal form, cooked and ready for immediate use. The adaptability of this food for general use under various feeding conditions makes it an ideal food for dogs, all breeds, and puppies, all ages. Re-

gardless of whether you have working dogs, show dogs, or just household pets, feed **Perfection** regularly and the result will be healthy and well-conditioned dogs at all times.

Dog-owners desiring the best in the line of dog food, at a price that is very reasonable, when quality is considered, cannot go wrong on **Perfection**. Our stock is always fresh, complete in all sizes, and ready for immediate shipment.

## PRICES AND SIZES

|                | Postpaid |
|----------------|----------|
| 5 lbs. \$0 60  | \$0 75   |
| 10 lbs. 1 00   | 1 20     |
| 25 lbs. 1 75   | 2 10     |
| 50 lbs. 3 00   |          |
| 100 lbs. 6 00  |          |
| 500 lbs. 27 50 |          |

Special prices on larger quantities. Sample and literature free upon request.

## Spratt's Foods for Dogs "The Backbone of the Canine Race"

The dog constitution needs a dog diet. Table scraps—toothsome and tasty though they may be—are not only totally unsuitable for the physical requirements of the dog, but are more often than not a direct cause of unfitness. The conditions under which dogs are at present bred and reared make necessary a diet which will provide all the food elements contributing to the formation of bone and muscle, the building and storing up of energy, stamina and vitality, and which will assist to maintain the highly organized canine brain. For sixty years **Spratt's** have made dogs and their requirements the subject of continual observation and research; and today for every dog, old or young, healthy or sick, there is a **Spratt's Food** guaranteed to suit exactly his requirements. Throughout the world **Spratt's Foods** are today the diet of millions of the fittest dogs—the diet directly responsible for their alertness, cleanliness, health, and good spirits.



### Spratt's Meat Fibrine Dog Cakes

For sixty years the standard dog food, used by the leading breeders and fed at the principal dog shows throughout the world. The best results are obtained by giving the biscuits dry, not soaked, thereby compelling the dog to gnaw the food and thus producing a copious flow of saliva which materially aids digestion. Carton 35 cts., postpaid 45 cts.; 5 lbs. 75 cts., postpaid 90 cts.; 25-lb. box \$3.15, postpaid \$3.50; 100-lb. box \$12.

### Spratt's Fibo

A unique granulated food, containing a large percentage of **Spratt's** world-famous Meat Fibrine. It is very appetizing and highly recommended for shy and dainty feeders, as a change of diet or as a suitable food for any dog at any time. Can be given either dry or soaked. Carton 40 cts., postpaid 50 cts.; 5-lb. bag 85 cts., postpaid \$1; 25-lb. bag \$3.50, postpaid \$3.85; 100-lb. bag \$13.50.



### Spratt's Puppy Cakes

A complete and perfect food for puppies from weaning time onwards, and for small breeds as the regular food instead of **Spratt's** larger Dog Cakes. Carton 40 cts., postpaid 50 cts.; 25-lb. box \$3.30, postpaid \$3.65; 100-lb. bag \$12.

**Spratt's Cod-Liver-Oil Cakes.** A valuable aid to convalescence of sick dogs, for old dogs and for puppies not making due progress. Carton 40 cts., postpaid 50 cts.

### Spratt's Oval Dog Biscuits

A small Meat Fibrine dog biscuit of superior quality. Appreciated by small, medium and large breeds. A few of these diminutive dog cakes can be carried in the pocket when on a ramble with the dog. Carton 40 cts., postpaid 50 cts.; 5-lb. bag 85 cts., postpaid \$1.

They're begging for it



Registered United States Patent Office

# ROSE'S

## Dog and Puppy Feed

### A Balanced Food for Dogs and Puppies

#### "THE DIET OF CHAMPIONS"

In offering Rose's Dog and Puppy Feed to our patrons, it is with the conviction that it is the best and most economical feed offered that contains everything vital and necessary to a dog's health. The ingredients are proportioned and blended to make a balanced food for dogs and puppies of all breeds and types. Rose's Dog and Puppy Feed has a meat content of over 25 per cent and will build large bone and muscle and produce a sleek coat of hair, so much desired by all fanciers and breeders.

#### Recommended and Endorsed by the Leading Veterinarians, Trainers, Breeders, and Kennel-men

Feed Rose's Dog and Puppy Feed for thirty days and note the decided improvement in the general condition of your dogs and puppies. Prevents rickets and other minor ailments so common in all dogs and puppies.

While it can be fed in its raw state, it is easily prepared by cooking, baking or many other ways best suited to the individual taste of your dog.

| Sizes                    |        | Postpaid |
|--------------------------|--------|----------|
| 2-lb. boxes.....         | \$0 25 | \$0 35   |
| 5-lb. boxes.....         | 50     | 65       |
| 10-lb. cotton bags.....  | 80     | 1 00     |
| 25-lb. cotton bags.....  | 1 60   | 1 95     |
| 50-lb. cotton bags.....  | 2 90   |          |
| 100-lb. cotton bags..... | 5 25   |          |

Literature and free samples mailed upon request

## "Old Trusty" Dog Foods

"Old Trusty" came into being after much time was spent in experimenting for the production of a food "Fit for the dogs." The dog-lover—"and breathes there a man with soul so dead" who has not a warm spot in his heart for that noble animal?—is indebted to those kennel owners who made such experiments possible, because it was only by such methods that a high standard food could be produced.

All "Old Trusty" foods are clean and wholesome, free from preservatives and sweetened matter.



### "Old Trusty" All Terrier Food

A granulated food of even balance, carefully mixed, not medicated or sweetened. An ideal food for all breeds, particularly terriers and active dogs. May be fed dry or moistened with milk or soup. Vegetables may also be added.

|                   | Postpaid      |                     |
|-------------------|---------------|---------------------|
| Large carton..... | \$0 40 \$0 50 | 50-lb. bag...\$5 00 |
| 5-lb. bag.....    | 90 1 05       | 100-lb. bag... 9 75 |
| 25-lb. bag.....   | 3 00 3 35     |                     |

### "Old Trusty" Puppy Meal

A fine, granulated, highly nutritious food, not a pasty meal.

|                   | Postpaid      |  |
|-------------------|---------------|--|
| Large carton..... | \$0 40 \$0 50 |  |
| 5-lb. bag.....    | 90 1 05       |  |
| 25-lb. bag.....   | 3 00 3 35     |  |
| 50-lb. bag.....   | 5 00          |  |
| 100-lb. bag.....  | 9 75          |  |

### "Old Trusty" Tit-Bits

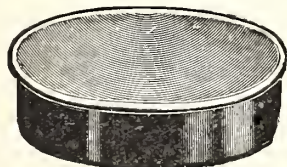
A granulated food of the very highest order. An ideal food for bitches in whelp. Toy dogs thrive on this well-balanced food. Tit-Bits makes a wonderful change in diet for all breeds, also dogs off their feed.

|                   | Postpaid      |                       |
|-------------------|---------------|-----------------------|
| Large carton..... | \$0 40 \$0 50 | 50-lb. bag.....\$5 75 |
| 5-lb. bag.....    | 1 00 1 15     | 100-lb. bag.....10 75 |
| 25-lb. bag.....   | 3 25 3 60     |                       |

### "Old Trusty" Whole Dog Cakes

A nice, well-balanced biscuit for all breeds. Fed dry, they are not only a wonderful food, but a great help in keeping the teeth in good condition.

|                   | Postpaid      |  |
|-------------------|---------------|--|
| Large carton..... | \$0 40 \$0 50 |  |
| 5-lb. bag.....    | 90 1 05       |  |
| 25-lb. case.....  | 3 00 3 35     |  |
| 50-lb. case.....  | 5 00          |  |
| 100-lb. bag.....  | 9 25          |  |



### Moe's Dog Feeder

A substantial feeding-dish which will not tip over and provides a clean, practical method of feeding. Diameter 10 1/4 in.; depth 2 in. Blue Porcelain Enameled. 75 cts. each; postpaid 85 cts.

## Sergeant's DOG FOOD

Correct food elements in proper proportion are of first importance in feeding puppies and dogs. Sergeant's Dog Food is the result of long study and experience in feeding. It carries all the best food essentials, and is a quick, easy way to feed. It contains clean, freshly cooked beef, and whole-wheat flour, together with other necessary ingredients. No preservatives are used, and a properly balanced ration is provided by feeding this food to your dog. It shows in his improved health and vigor. 2-lb. pkg. 40 cts.; postpaid 50 cts.



## Bennett's Milk-Bone Dog and Puppy Biscuits

A FOOD THAT ALL DOGS LOVE

Milk-Bone is made to meet the particular physical needs of dogs; it is made to suit the peculiar digestive organism of dogs. Milk-Bone not only provides the necessary energy-producing material, but it also supplies the materials for tissue repair.

Milk-Bone keeps a dog in sound health, with good digestion, sweet breath, and regular habits.

Dogs fed on Milk-Bone enjoy every minute of life because they have the buoyancy and pep that go with proper nourishment and perfect health.

Milk-Bone is made to give a dog the sustenance he needs, the food he favors, without burdening his digestive system.



|                                 |        |          |        |          |
|---------------------------------|--------|----------|--------|----------|
|                                 | Each   | Postpaid | 3 for  | Postpaid |
| Puppy Biscuit, 28-oz. carton... | \$0 35 | \$0 45   | \$1 00 | \$1 20   |
| Dog Biscuit, 31-oz. carton..... | 35     | 45       | 1 00   | 1 20     |

## Mercy Mange Cure

An efficient remedy for mange, eczema, and other skin diseases of dogs and cats and for curing running sores and wounds of every description, including all hoof infirmities of horses and cattle.

If you have a stubborn case of skin disease on a dog or cat, get Mercy. Pt. can \$1.25, postpaid.



McKEON'S (Concentrated)

*"Liquid Sulphur"*

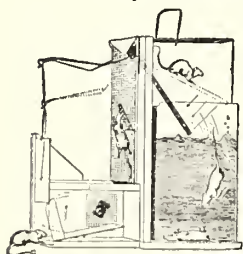
Nature's original treatment for mange, eczema, and all skin diseases on large and small animals. Dilute in 20 parts water. Apply direct to affected areas. Gives sulphur baths like those at Mt. Clemens. (As good for you as for your pet, stock or poultry.) Ask your veterinarian or physician.

A drop or two in your animal's drinking-water is a fine conditioner, too. 8-oz. bottle, postpaid, \$1.50.

NOT an Experiment.

## Peerless Rat and Mouse Trap

Every Rodent Sets the Trap for Its Follower

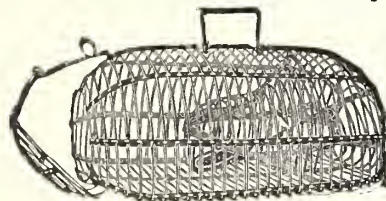


The Peerless Always-Set Trap is the scientific means of dealing death to sneaking, wily rats and mice. It is positively automatic in operation, and, barring accidents, cannot get out of order. It leads the animal to certain death, and each one killed sets the trap for another to follow.

Mouse Trap \$3, postpaid \$3.20.

Rat Trap \$8.50.

## Surprise Rat Trap



This Trap is very strongly made, having more stiffening ribs and cross-wires than traps of similar pattern. Made of No. 17 coppered wire 16 in. long, 9 in. wide, 7 in. high. \$1; postpaid \$1.15.

## Chamberlain's Perfect Bird Food

WITH VEGETABLE AND EGG FLAKES

Birds properly fed do not need a song restorer.

Give your bird a treat and let him be the judge.

Contains a large variety of thoroughly cleaned, choice, sound and sweet imported and domestic seeds, each in just the correct proportions.

Every seed and every article has its own particular purpose and duty to perform, such as enhancing the brilliancy of the plumage, improving the song, keeping the bird healthy, bright and cheerful.

Always fresh—sold only in damp-proof cans. 10-oz. can 25 cts., postpaid 30 cts.; 50-oz. can \$1, postpaid \$1.15.



## Bird Foods and Remedies



Spratt's Egg-Flake and Fruit Canary Mixture. 15-Pkg. Postpaid  
oz. pkg. .... \$0 25 \$0 30

Spratt's Cod-Liver Oil Cage Bird and Nestling Food. For feeding young birds and old birds in the moulting season. A tonic and flesh and bone-maker. Unequaled as an aid to feather-growth.

4-oz. pkg. .... 20 25

Spratt's Song Restorer. For birds who have lost voice from the effect of cold or excessive moulting. Invaluable for breeding birds and their young.

4-oz. pkg. .... 25 30

Spratt's Sing-Song. For health and song.....

15 20

Spratt's Tonic for Birds. 1-oz. bottle.....

25 30

Spratt's Parrot Mixture. A mixed food for parrots.

10-oz. pkg. .... 25 30

Spratt's Pollicrackers. Specially prepared and adapted for parrots of all kinds. 10-oz. pkg. ....

15 20

Bird Manna. Keeps cage birds in constant song, improves their plumage, and prevents disease....

15 20

Silver Brand Bird Gravel. 30-oz. pkg. ....

15 20

Chamberlain's Bird Gravel, with Charcoal. 24-oz. pkg. ....

15 20

Burnett's Bird Nesting.....

10 15

Burnett's Canary Louse Powder. 1-oz. pkg. ....

25 30

Burnett's Unexcelled Bird Food. A song restorer.

10-oz. pkg. .... 25 30

Burnett's Color Food for Cage Birds. Enriches the color of the plumage. 6-oz. pkg. ....

30 35

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Bird Health. A conditioner and song restorer for birds. 2-oz. pkg. ....

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## BOOKS FOR POULTRYMEN

On this page it has been our aim to give a representative list of books devoted to practical poultry-keeping. There are many other books on this subject, and if we do not list the particular book you want, write us for prices. We can furnish any poultry book published. The books in the following list will be sent postpaid at the prices given.

- American Standard of Perfection.** Published by the American Poultry Association and is the American authority on the recognized characters of all varieties of chickens, turkeys, ducks, and geese. The Standard contains "ideal" pictures made from photographs of living models, showing fowls of many different breeds. It is the one book most used by judges, fanciers, and breeders, and the only recognized authority in awarding prizes in the poultry shows of the United States and Canada, and is the "last word" on all questions that arise in regard to the characters of standard-bred fowls. Size and weight of birds of the different breeds, their shape, carriage, markings, etc., are officially described in this book. For this reason, no one who breeds fowls, even on a small scale, can afford to be without this book. The latest edition of the Standard contains 368 pages, 112 full-page illustrations, and is printed on fine paper. Cloth binding, \$2.50.
- Plymouth Rock Standard and Breed Book.** This book is devoted exclusively to Plymouth Rocks and is published by the American Poultry Association. It is a truly wonderful work and contains 432 pages and over 530 illustrations, showing every variety of Plymouth Rocks recognized in the "Standard of Perfection." \$2.50.
- The Wyandotte Standard and Breed Book.** A book that every breeder of Wyandottes needs. Published by the American Poultry Association, it is an authoritative guide to judging and breeding Wyandottes—all varieties. In completeness, clearness, and exactness of text and instructional value of beauty of illustrations, it has no equal. 408 pages, fully illustrated. Cloth binding, \$2.50.
- The Call of the Hen.** This book tells you how to pick out the hens that will lay the most eggs, which knowledge will enable you to sell off the poor layers before they have eaten their heads off, thus saving you a considerable feed-bill, lots of unnecessary work, and bringing you larger returns on your investment. "The Call of the Hen" always shows you how to pick out the profitable layer from the rest of the flock; how to pick breeders that will transmit their laying ability to their progeny. \$2.
- Poultry-Houses and Fixtures.** Ninth Edition. Revised and edited by H. W. Jackson. Gives complete plans and bills of material for all kinds of houses designed to meet every practical need and for every condition of location and climate. Special attention is given to convenient, labor-saving devices for interior and exterior use. 320 pages, illustrated. \$2; cloth binding, \$3.
- Artificial Incubating and Brooding.** By Homer W. Jackson. This new edition of "Artificial Incubating and Brooding," recently issued, has been rewritten from cover to cover and is thoroughly up to date in every respect—the best book published thus far on this important subject. Tells how to operate incubators successfully and how to raise the chicks after they are hatched, no matter what make of brooding device is used. 112 pages, well illustrated. \$1.
- Use of Artificial Light to Increase Winter Egg-Production.** By G. M. Curtis. The best book on the subject to date—in fact, the only book complete. 112 pages; 5 pages of instructive, helpful color plates. \$1.50.
- High Egg Production.** By individual Hens, Pens and Flocks. By Homer W. Jackson and Grant M. Curtis. Everything known on this subject will be found in this new book brought right up to date. 176 pages; illustrated. \$2.
- Poultry for Exhibition.** By John H. Robinson. This book will tell you what you need to know about growing, conditioning, training, showing and judging poultry. 176 pages. Profusely and finely illustrated. \$2.
- Fundamentals in Poultry Breeding.** By John H. Robinson. Without doubt the most complete and most authoritative work ever published on the interesting subject of poultry breeding. 160 pages; well illustrated, including 50 full-page plates. \$2.
- Successful Back-Yard Poultry-Keeping.** Compiled by H. W. Jackson. Invaluable to everyone interested in poultry-keeping on a small scale. No matter where you are located, how many fowls you keep, or how little experience you may have had, this book will guide you to success. 104 pages; illustrated. \$1.
- Profitable Culling and Selective Flock Breeding.** By G. M. Curtis and H. W. Jackson. Only complete work on culling. Fully describes all approved methods of selecting layers. 300 pages; 178 illustrations. \$2; cloth binding, \$3.
- The Production of 300-Eggers and Better by Line Breeding.** By M. E. Atkinson and Grant M. Curtis. Treats largely of latest advance steps in poultry culture and systematic line breeding. 400 pages. \$2.50; cloth binding, \$3.50.
- The Leghorns.** By J. H. Drevenstedt. This is the most complete textbook ever written about the Leghorn. 144 pages; attractive illustrations. \$1.
- The Plymouth Rocks.** By Wm. C. Denny. An authoritative text-book and instructive treatise that explains standard requirement and tells how to select the right breeders and how to mate to insure best development and showroom success. Such important subjects as double mating, line breeding, strain building, etc., are treated by past masters in the art of breeding. 144 pages; illustrated. \$1.
- The Wyandottes.** By J. H. Drevenstedt. The standard qualities of all varieties of Wyandottes are fully described and complete information given on how to mate and breed, how to exhibit and judge them. The distinctive Wyandotte type is fully described. 160 pages; beautifully illustrated. \$1.
- The Campines.** By F. L. Platt. The contributors to this book are the leading Campinists of the United States, England, Belgium, and Canada. It represents the results of two years of work and preparation, and is a valuable guide to Campine breeders. 88 pages. 75 cts.
- The Orpingtons.** By J. H. Drevenstedt. The most comprehensive and most beautifully illustrated book published on this breed. 75c.
- The Asiatics.** The best book that has been issued to date on the mating, breeding, selecting, exhibiting, and judging of Light and Dark Brahmas; Buff, Partridge, Black and White Cochins; and white and Black Langshans. 96 pages; illustrated. 50 cts.
- Egg Record and Account Book.** A simple, easy method of keeping correct accounts by the day, month, and year, of all expenses and income. Also a record of all eggs laid, set, or sold; of chicks hatched and sold, and a record of orders as filled. 40 cts.
- How to Make Poultry Pay.** 116 pages. Paper binding. \$1.
- The Bantams.** 256 pages; illustrated. Cloth binding, \$2.
- A Living from Eggs and Poultry.** By H. W. Brown. 188 pages; illustrated. \$1.40.
- Best Methods of Feeding.** By H. A. Nourse. 50 cts.
- Modern Fresh-Air Poultry Houses.** By Dr. Prince T. Woods. 192 pages; illustrated. \$2.

### Ducks and Rabbits

- Growing Ducks and Geese for Profit.** By John H. Robinson. Complete textbook of domestic water-fowl, giving the latest and best methods for housing, feeding, incubation, brooding, and marketing. 448 pages; upwards of 200 illustrations. \$2.50; cloth binding, \$3.50.
- All About Indian Runner Ducks.** 92 pages. 75 cts.
- Duck Culture.** Sixth Edition. By James Rankin. 100 pages; illustrated. 75 cts.
- Rabbit Culture and Standard.** 132 pages; illustrated. 50 cts.
- The Care and Management of Rabbits.** 253 pages; illustrated. \$1.25.

### Pigeons and Squabs

- American Squab Culture.** By E. H. Eggleston. \$2.
- A to Z of Pigeons.** By F. W. DeLancey. Mating, feeding, etc. 100 pages. 75 cts.
- National Standard Squab Book.** By E. C. Rice. All about breeding pigeons and growing squabs for market. 416 pages; 120 illustrations. \$2.
- Pigeon Disease and Management.** By E. J. W. Dietz. Most complete information available on diseases. Chapter on general care. 78 pages; illustrated. 75 cts.
- Pigeon Loft Register.** 40 cts.

### Turkeys and Pets

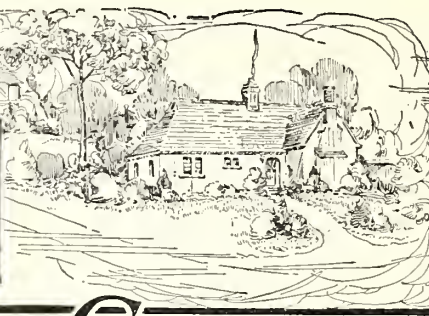
- Parrots and Other Talking Birds.** By Chas. N. Page. The most complete work on this subject. 35 cts.
- Cat Culture.** An instructive book treating on the care, breeding, and diseases of cats. 64 pages. 15 cts.
- Canary Breeding and Training.** By Charles N. Page. A treatise on the breeding, rearing, training, and care of Canary Birds. 101 pages; illustrated. 35 cts.
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## Books for better Gardens

WE have endeavored on this page to give a list of Farm and Garden Books that will be read with interest and profit by the majority of the readers of our Catalogue. There are, however, hundreds of others, just as readable and of equal value, which we do not have the space even to name. We will be glad to secure for our readers any book now in print on any particular subject. Just give us the subject and we will tell you what is available and the price. Any of the books sent postpaid.

**1001 GARDEN QUESTIONS ANSWERED.** By Prof. Alfred C. Hottes. A guide-book to daily operations, covering the flower-, fruit-, and vegetable-garden. A wealth of garden facts which hundreds of men have spent their lives in obtaining will be found in this book. Well illustrated. Paper binding, \$1.50; cloth, \$2.

**GARDEN GUIDE.** Unrivalled manual on flowers, fruits, vegetables, etc. Covers every step from spading the ground to preserving the harvest. 384 pages; heavily illustrated. Paper binding, \$1; cloth, \$1.50.

**MILADY'S HOUSE PLANTS.** By F. E. Palmer. An instructive book for women on successful culture of plants in their homes. 176 pages. Paper binding, \$1; cloth, \$1.25.

**SHRUBS.** By F. F. Rockwell. Brief but complete and usable information on the best ways to improve the beauty and value of your home with shrubs. Tells what to select for different combinations and effects, and how to plant, water, mulch, prune, and care for shrubs. 76 pages; 49 illustrations. \$1.

**THE BOOK OF SHRUBS.** By Prof. Alfred C. Hottes. Brings together a vast amount of information on shrubs that otherwise would have to be sought in various directions. 384 pages; 155 half-tones and diagrams. Cloth binding, \$3.

**THE BOOK OF BULBS.** By F. F. Rockwell. Here is the "last word" on bulbs and how to grow them in the garden. Pictures and text show and tell just how to make the most from bulbs in your garden, both outdoors and inside the home. Includes peonies, dahlias, irises, gladioli, etc., as well as tulips, narcissus, hyacinths, and other true bulbs. Interesting and practical. 264 pages; 187 illustrations. \$3.

**BULBS THAT BLOOM IN THE SPRING.** By T. A. Weston. Affords all the information the home gardener requires on the culture of spring-flowering bulbs. 144 pages. Paper binding, \$1.50; cloth, \$2.

**MODERN DAHLIA CULTURE.** By W. H. Waite. Written to meet the needs of the novice and to interest and inform the expert. Biggest book value there is for dahlia-lovers. 132 pages. Cloth binding, \$1.50.

**DAHLIAS.** By F. F. Rockwell. All dahlia-lovers will profit from this interesting and helpful book. It describes the various types and tells their uses, how to plant and grow them, the fertilizers to use, how to control pests, how to harvest and store, grow for exhibition, and how to propagate and hybridize. 80 pages; 65 illustrations. \$1.

**GLADIOLI.** By F. F. Rockwell. Tells how to plant, fertilize, and cultivate; how to grow from seed or bulblets; how to harvest and cure; how to handle for cut flowers; and every other detail needed for success with this popular flower. 79 pages; 45 illustrations. \$1.

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**THE BOOK OF ANNUALS.** By Prof. Alfred C. Hottes. A reliable guide through the season of annual bloom. 180 pages. Cloth binding, \$1.50.

**A LITTLE BOOK OF PERENNIALS.** By Prof. Alfred C. Hottes. Devoted to the general principles of growing, using, selecting, and propagating perennials, followed by a number of comprehensive lists of perennials suited for different locations and purposes. 200 pages. Paper binding, \$1; cloth, \$1.50.

**A LITTLE BOOK OF CLIMBING PLANTS.** By Prof. Alfred C. Hottes. A practical and valuable treatise on climbers. 250 pages. Paper binding, \$1.50; cloth, \$1.75.

**WATER GARDENS AND GOLDFISH.** By Robert V. Sawyer and Edwin H. Perkins. Teaches the amateur the art of growing water-lilies in a small way, gradually leading up to the construction of concrete tubs and ponds. The second half of the book, devoted to goldfish in the home aquarium and pool, is most interesting and instructive. Cloth binding, \$1.50.

**BIRDS OF THE WILD—How to Make Your Home Their Home.** By Frank C. Pellett. Chatfully discusses how birds provide pleasure such as cannot be obtained in any other way. 128 pages; many illustrations from photographs taken by the author. Cloth binding, \$1.75.

**GARDENING UNDER GLASS.** By F. F. Rockwell. Written especially for the amateur and showing him how he can have fruits and vegetables of superb quality out of season, roses and carnations in midwinter, palms and ferns all the year around. 304 pages. Cloth binding, \$2.50.

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**ROCK-GARDENS.** By F. F. Rockwell. Shows just how you can build a rock-garden yourself, on a small or large scale, and at little expense. Describes the types of rock-gardens; tells what soils, climates, and locations are best; how to construct; and what to plant for the effect you want. Let this practical book demonstrate the fascination of this form of gardening and guide you to success. 86 pages; 31 illustrations. \$1.

**THE PRINCIPLES OF FLOWER ARRANGEMENT.** By Prof. E. A. White. For the hostess, the social leader, and all women who delight in displaying flowers in their fullest beauty. 228 pages. Cloth binding, \$3.

**THE WOMAN'S FLOWER GARDEN, INDOOR AND OUTDOOR.** By Jane Leslie Kift. A book for women on the care of flowers and plants in the home and on their cultivation in the garden. 160 pages. Rose-color cover, on stiff boards, \$1.

**FOUNDATION PLANTING.** By Leonard H. Johnson. The art and science of beautifying, by means of plants, the immediate frontage of the house. Profusely illustrated. 256 pages. Cloth binding, \$3.50.

**PRACTICAL LANDSCAPE GARDENING.** By Robt. B. Cridland. Takes up all the elements that enter into the beautifying of properties. 280 pages; copiously illustrated. Cloth binding, \$2.50.

**THE COMPLETE HOME LANDSCAPE.** By Arthur J. Jennings. A complete guide to the planning, construction, and planting of the garden and grounds of the average home. 178 pages. Cloth binding, \$2.50.

**PRACTICAL PLANT PROPAGATION.** By Prof. Alfred C. Hottes. An exposition of the art and science of increasing plants, as practiced by the nurseryman, florist, and gardener. 224 pages; illustrated. Cloth binding, \$2.

**FERTILIZERS.** By E. B. Voorhees; revised by S. B. Haskell. Presents usable plans for the fertilizing of flowers, lawns, garden, and field crops. Tells how to judge an analysis guarantee, to reduce to workable terms, to plan and calculate the ingredients for a specific mixture. 310 p.; 29 illustrations. \$2.50.

**AROUND THE YEAR IN THE GARDEN.** By F. F. Rockwell. This splendid book, written by one of America's best-known practical gardeners, is unique in its usefulness. It starts with preparations for the season's work in January and outlines a balanced program for the garden through every week in the year. Bound to bring you success. 350 pages; 88 illustrations. \$2.50.

**THE GARDENER.** By L. H. Bailey. This book gives you the very essence of Dr. Bailey's unequaled knowledge of gardening. It tells how to grow flowers, vegetables, and fruits from the time of planting through to maturity. Special articles on different types of gardening. Arranged alphabetically. 260 pages; 116 illustrations. \$2.

**HOME FLOWER-GROWING.** By E. C. Volz. This book is a real flower-garden encyclopedia! It gives up-to-the-minute directions for growing every kind of garden flower, with instantaneous reference through an unusually complete index. Also tells how to prepare exhibits for a flower show, and how to organize a garden club. 364 pages; 151 illustrations. \$3.50.

**MANUAL OF GARDENING.** By L. H. Bailey. A guide for planting and landscaping the home grounds. Tells how to make the most of natural features; how to drain, cultivate, and fertilize the soil; how to sow, propagate, transplant, prune, and graft the different fruits, vegetables, and flowers. Lists of varieties for different purposes. 539 pages; 350 illustrations. \$3.

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**MANUAL OF TREE AND SHRUB INSECTS.** By E. P. Felt. \$3.50.

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